An Exploration of the Main Sources of Shame in an Eating Disordered Population

Laura Keith

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Declaration

"This thesis has been composed by myself and the work herein is my own"

Laura Keith

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Abstract

Objective: Eating disordered populations have been consistently found to demonstrate high levels of shame. However, the factors contributing to this had not previously been established. This study explored the main sources of shame in 52 individuals with a current diagnosis of an eating disorder.

Method: All participants completed questionnaires on eating disorders, negative affect, perceived parental bonding, Social Isolation schema (Young & Brown, 1990) and bodily, behavioural and characterological shame and shame around eating. They were also asked to indicate if they had experienced bullying/teasing in their past. An individual meeting the criteria for anorexia nervosa and an individual with bulimia nervosa were randomly selected to participate in a semi-structured interview to obtain more in depth information about their experience of shame and eating disorders.

Results: Pearson correlations and partial correlations were used to identify appropriate factors to be entered into the regression model. Stepwise linear regression analyses indicated that maternal care, Social Isolation schema and current eating disorders symptomatology were significant predictors of shame, explaining 50% of the variance. Social Isolation schema was found to be the major contributor to this model. Depression was also entered into the model but was not found to make a significant independent contribution. The link between bullying/teasing and Social Isolation schema was also supported.

Conclusions: The study adds further insight into the relationship between shame and eating disorders by identifying factors involved in the development of shame in this population. Results highlight the role of both early experiences and current symptoms, suggesting that shame has an important role in both the development and maintenance of eating disorders. Implications for treatment are discussed, as are suggested areas of future research. In particular, the need to consider bullying/teasing in shame and eating disorders research is emphasised.

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Chapter 1: Introduction

1. Introduction

1.1. Eating Disorders

Eating disorders are one of the most common psychiatric problems experienced by women and girls and are characterised by chronicity, relapse and high levels of physical and psychological comorbidity (Lewisohn, Streigel-Moore, & Seeley, 2000). Eating disorders have been defined as 'a persistent disturbance of eating or eating-related behaviour that results in the altered consumption or absorption of food and that significantly impairs physical health or psychological functioning' (Fairburn & Walsh, 1995, p.135).

i) Classification

Over the years in both systems of diagnostic classification, the American Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV; APA, 1994) and the World Health Organisation's Classification of Mental and Behavioural Disorders (ICD-10; WHO, 1992), the diagnostic categories for eating disorders have been specified and refined (Schmidt, 2003). At present, in DSM-IV, eating disorders are divided into three diagnostic categories: anorexia nervosa, bulimia nervosa, and eating disorders not otherwise specified (APA, 1994). However, the disorders have many features in common and patients frequently move between diagnoses, thus calling into question the reliability of the current classification system (Fairburn, Cooper, & Shafran, 2003).

ii) Anorexia Nervosa

Anorexia nervosa has been recognised in the medical literature for at least the last 150 years, although its presentation seems to have changed over time towards a greater emphasis on psychological disturbances related to body size, possibly in line with similar socio-cultural shifts (Russell, 1995). Anorexia nervosa has also been described across different cultures (Schmidt, 2003). Incidence rates of anorexia nervosa are highest for females 15-19 years old; these constitute approximately 40% of all identified cases and 60% of female cases (van Hoeken, Seidell, & Hoek, 2003). Few studies report incidence rates for males, in those that do; the female to male ratio is usually around 11 to 1 (Hoek, 1993).

To meet a diagnosis of anorexia nervosa an individual must firstly be considered 'significantly underweight' (Walsh & Garner, 1997). To some degree, this is open to clinical judgement; however, both the DSM-IV and ICD-10 provide suggested guidelines. The DSM-IV guideline is a 'body weight less than 85% of that expected', with the ICD-10 suggested criterion that 'Quetlet's body-mass index is 17.5 or less', a criterion which is stricter than the former. It is also essential that the person wishes to be underweight and makes conscious efforts to avoid gaining weight, for example by restricting food intake, excessively exercising, purging or avoiding certain foods, such as those perceived to be high in fat content (Walsh & Garner, 1997).

Sufferers of anorexia nervosa have an intense fear of gaining weight, specifically fearing becoming vastly overweight should they abandon the control they exert over their eating. This is often described as a 'drive for thinness' (Garfinkel, 1995). However, the person's view of "overweight" tends to be "heavier than they are at present" and not what is generally or medically perceived to be overweight (Walsh & Garner, 1997). This fear typically intensifies with increased weight loss. Linked to this is an over concern with body weight or shape in their self-evaluation, basing their self worth sometimes exclusively on these factors and their ability to control them (Fairburn & Harrison, 2003). This can lead to experiences of shame, fear and embarrassment with weight gain. Individuals may also exhibit disturbed judgement regarding their body weight or shape, experiencing their body or parts of their body as being too big, and often deny the seriousness of their low body weight (Garfinkel, 1995).

A final criterion requires that postmenarchal females cease to menstruate. This amenorrhoea is likely to arise as a result of a combination of physical and psychological factors, being observed in a minority of women with anorexia nervosa before there is any real weight loss (Walsh & Garner, 1997).

Studies documenting differences between patients with anorexia who binge/purge and those who only restrict food intake, led to DSM-IV recognising these as two

subgroups of anorexia nervosa. Those classified as the binge-eating/purging type typically demonstrate more impulsive behaviours than the restricting type, showing higher prevalence of drug abuse, suicide attempts, stealing and self-mutilation (Halmi, 1995). They also report higher premorbid weights and are more likely to come from families with obesity problems (Garfinkel, 1995). In addition there have been differences in personality characteristics observed between the two sub-groups, with the binge/purge type commonly exhibiting borderline, narcissistic or antisocial traits and the restrictors tending to be more inhibited and obsessional (Halmi, 1995).

iii) Bulimia Nervosa

Bulimia nervosa is a relatively new disorder, being formally described and named by Gerald Russell in 1979, although cases describing similar symptoms were reported earlier. The group at highest risk of bulimia nervosa are females in the 20-24 year age range, with female to male ratio found to be around 30:1 (van Hoeken et al., 2003). Bulimia nervosa is characterised by recurrent episodes of binge-eating, with a binge defined as 'eating more than is normal, given what other people eat over a specified period of time' and involving a subjective sense of loss of control (Walsh & Garner, 1997). Food consumed over these episodes tends to be what the patient might describe as "forbidden foods", for example, large quantities of biscuits, chocolate, crisps or other high fat foods. The amount consumed in binge episodes varies, but is found to average between 1000-2000 calories (Rosen, Leitenburg, Fisher & Khazam, 1986). Typically, negative emotions trigger bingeing, which appears to have the effect of blocking out the emotions temporarily (Heatherton & Baumeister, 1991). Binges tend to result, however, in feelings of physical discomfort and fear of gaining weight (Garfinkel, 1995). Individuals use inappropriate compensatory strategies to avoid gaining weight from the bingeing. Examples of these strategies include self-induced vomiting, abusing purgatives (most commonly laxatives), fasting or excessive exercising.

As in anorexia nervosa, individuals' self-evaluation is overly influenced by body shape and weight, commonly resulting in extreme distress following weight gain (Walsh & Garner, 1997).

Bulimia nervosa is also divided into subtypes in DSM-IV. Those who purge are distinguished from those who use other compensatory strategies, such as fasting, as some research suggests there are significant differences found between the two groups. Individuals with the purging type usually have lower body weights, more symptoms of depression and greater concern with body shape and weight than do individuals with the non-purging type (Willmuth, Leitenberg, Rosen & Caldo, 1988). There are also more significant physical complications as a result of purging behaviours. Those who do not purge tend to be obese (Halmi, 1995). However, these are all generalisations and research in the area is inconsistent.

iv) Atypical Eating Disorders

At least one-third of those presenting for the treatment of an eating disorder neither meet the diagnostic criteria for anorexia nervosa nor bulimia nervosa and are described in DSM-IV as having 'eating disorders not otherwise specified' (EDNOS). ICD-10 on the other hand identifies six different atypical eating disorders. These can be divided into those resembling anorexia nervosa or bulimia nervosa but not fully meeting the diagnostic criteria (for example, a fairly typical clinical picture of anorexia nervosa but with a body mass index [BMI] of more than 17.5), and those that are qualitatively different from these disorders (Fairburn & Walsh, 1995).

One particular example of an EDNOS that has received attention from researchers is that of people who experience uncontrollable episodes of binge eating but do not attempt to compensate for these. Spitzer and his colleagues (1992) proposed criteria for this syndrome and termed it 'binge eating disorder' (Spitzer, Devlin, Walsh et al, 1992). This is not as yet an officially recognised disorder but DSM-IV provides diagnostic criteria for the purposes of research into the condition. It has been found to constitute a distinct diagnosis in studies using a cluster analysis approach using mixed groups of eating disorder patients (e.g. Sloan, Mizes & Epstein, 2005). Sufferers differ from those with anorexia nervosa and bulimia nervosa in that their self-evaluation is not overly concerned with weight and body shape, however distress around their behavioural disturbance and loss of control are necessary criteria for diagnosis. Binge eating disorder affects primarily an older age group than for

anorexia nervosa and bulimia nervosa and its sex ratio is more even (Fairburn & Harrison, 2003)

v) Relationship Between Diagnostic Subgroups

Classification of eating disorders highlights the differences between the diagnostic subgroups but there are many similarities across diagnoses and significant heterogeneity within the subgroups that complicate this classification. Anorexia nervosa and bulimia nervosa are united by a distinctive core psychopathology; the over valuation of body shape and weight, and their ability to control these, in their measurement of self-worth (Fairburn & Harrison, 2003). Many, but not all, sub classifications included in the EDNOS category also share this feature. Most individuals with eating disorders also have restrictive eating and fear of fatness. These features remain relatively stable over time, even though the diagnostic classification for an individual may change (Walsh & Garner, 1997).

Following treatment and over time, boundaries between diagnoses can become unclear. For example, a woman with anorexia nervosa, binge-eating/purging type, might regain weight and begin to menstruate but continue to binge and purge. This woman could be described as a partially recovered anoretic but would equally qualify for a diagnosis of bulimia nervosa. Similar difficulties arise in the classification of non-purging bulimia nervosa and binge-eating disorder. Clearly, there are problems regarding the eating disorder taxonomy.

vi) Prevalence and Incidence

A recent review of the literature on the incidence and prevalence of eating disorders found an average prevalence rate for anorexia nervosa of 0.3% for young women, prevalence rates for bulimia nervosa were 1% and 0.1% for young women and men respectively and an estimated prevalence for binge eating disorder of at least 1% (Hoek & van Hoeken, 2003). There is a general belief that eating disorders have become more frequent over recent decades. The aforementioned review concluded that the incidence of anorexia nervosa definitely increased over the past century, until the 1970's (Hoek & van Hoeken, 2003). However, since then it seems this has

remained relatively stable while the incidence of bulimia nervosa rose dramatically until the 1990's (Turnbull, Ward, Treasure et al., 1996) but now appears to be falling, at least within the UK (Currin, Schmidt, Treasure & Jick, 2005). However, this rise could be partially explained in terms of greater help seeking, better detection and changes in diagnostic practice. It is likely that any reported figures will be an underestimation of the prevalence, at least for bulimia nervosa, as evidence suggests that many cases are not detected due to high levels of secrecy associated with the disorder and that many GPs lack the skills and knowledge necessary to identify the symptoms (Hoek, 1991).

vii) Comorbidity

The rate of depressive and anxiety disorders in patients with eating disorders has consistently been found to be high (Fairburn & Harrison, 2003) with strong support for the conclusion that these symptoms are generally secondary to the core disturbance in eating habits and ideation (Cooper, 1995a). However, a recent large-scale study, which reported a lifetime anxiety disorder in two-thirds of their eating disorder sample, found that a majority of these anxiety disorders had developed in childhood, before the onset of their eating disorder (Kaye, Bulik, Thornton, et al., 2004). The most common anxiety disorders reported by this sample were obsessive-compulsive disorder (41%) and social phobia (20%).

Substance and alcohol abuse has been found to be considerably higher in bulimic women than in controls (e.g. Bulik, 1987). The same has not been found in anorexic patients, despite sharing common factors with sufferers of substance and alcohol abuse, such as denial as a central feature and being characterised by chronic course and frequent relapse (Halmi, 1995).

Studies investigating the cooccurence of eating disorders with Axis-II personality disorders have found significant overlap for anorexia nervosa, bulimia nervosa (Halmi, 1995) and binge-eating disorder (van Hanswijck de Jonge, van Furth, Lacey & Waller, 2003). Unsurprisingly, the presence of a personality disorder in eating disordered individuals, especially borderline personality disorder, has been related to

higher incidences of other problems such as suicidal and parasuicidal behaviour, family dysfunction and affective disorders (Wonderlich, 1995).

1.1.2 Aetiology

Little is known about the aetiology of eating disorders, although it is generally considered complex and multifactorial in nature, involving the interaction of genes and the environment. No potential aetiological factor, considered in isolation, is sufficient to account for the development of disorder or to explain the variation observed among individuals. The onset and course of eating disorders are dependent on the occurrence of vulnerability factors in the individual and on the operation of maintaining and protective factors (Cooper, 1995b).

i) Genes/Heritability

Controlled family studies suggest that relatives of individuals with anorexia nervosa or bulimia nervosa have an increased risk of developing eating disorders (e.g. Lilenfeld, Kaye, Greeno et al., 1998). Twin studies indicate that genetic factors have significant influence in anorexia nervosa, especially the restrictive type, but are of less relevance to bulimia nervosa (Treasure & Holland, 1995). Conclusions from these studies suggest genetic influences are in the form of shared vulnerability to psychiatric disorders in general, but also show unique susceptibility to anorexia nervosa and bulimia nervosa. However, different estimates of heritability have been obtained from various studies, the reliability of which is limited due to small sample size.

A recent linkage analysis of families with at least one affected relative pair with anorexia nervosa or bulimia nervosa found only modest evidence of linkage (Kaye, Lilenfeld, Berrettini et al., 2000).

The neurobiology of eating disorders is a complex and developing area of research. Brain serotonin (5-HT) systems play a role in the modulation of appetite, depression, anxiety, impulse control, obsessionality and neuroendocrine function (de Zwaan, 2003). Studies looking at the role of serotonin- and dopamine-linked genes have

produced mixed results in identifying possible involvement in eating disorders, as have studies looking at genes related to weight control, feeding and energy expenditure (Schmidt, 2003). There is some evidence that these genes are involved in the development of eating disorders, however as yet the aetiological significance of this remains unclear.

Many traits related to eating disorders also have a heritable component. These include binge eating, self-induced vomiting, drive for thinness, dietary restraint and disinhibition (Bulik, Sullivan, Wade, & Kendler, 2000). Some enduring personality traits appear to be linked to eating disorders and research suggests familial co-transmission. These include high levels of stress reactivity, harm avoidance and negative emotionality (e.g. Fairburn, Cooper, Doll, & Welch, 1999). Finally, BMI has been found to be highly heritable (Hebebrand & Remschmidt, 1995). A review of risk and maintenance factors for eating pathology found elevated body mass to play an important role in promoting risk factors for eating disorders, such as increased social pressure to be thin and dieting, but not to be a direct risk factor in itself (Stice, 2002).

Some of these findings are consistent with both genetic and environmental explanations of familial transmission, but taken together, there seems to be some evidence to support a role for genetic vulnerability in eating disorders aetiology. It is not clear, however, whether this vulnerability operates directly or by predisposing to obesity or personality traits that, in turn, predispose the individual to the development of eating disorder pathology. As there are great variations in the results from genetic and heritability studies firm conclusions cannot be drawn and it is likely these factors are just part of the picture. It is therefore important to also consider environmental risk factors.

ii) Socio-cultural Factors

In the Western world high value is placed on slimness and dietary restraint. This creates pressure to be thin and dissatisfaction with body shape, which can, in turn, place individuals at risk for dieting, negative affect and eating pathology (Cooper,

1995b). Some studies emphasise the role of the mass media in the development of these values, conveying salient or hidden messages to girls about what they should look like (e.g., Andersen & DiDomenico, 1992). However, a relatively small number of individuals develop eating disorders, and it has been observed in a historical context and in non-Western cultures that eating disorders manifest without weight and shape concerns (Ngai, Lee, & Lee, 2000), suggesting these social and cultural pressures are neither necessary nor sufficient in their explanation. There is evidence that adverse effects of perceived pressure to be thin are more pronounced for initially at-risk individuals (Stice, 2002).

iii) Personality/Psychological Factors

Longitudinal studies have suggested a relationship between low self-esteem and the later development of eating disorders (e.g., Wood, Waller, & Gowers, 1994). Retrospective reporting of childhood negative self-evaluation also suggests that this may be higher in women with anorexia nervosa or bulimia nervosa than in either non-clinical controls or in women with other psychiatric disorders (Fairburn et al., 1999; Fairburn, Welch, Doll, Davies, & O'Connor, 1997). However, most people who have a low opinion of themselves do not become eating disordered.

Certain personality traits have been reported as being implicated in the development of eating disorders. Women with anorexia and bulimia nervosa have been found to be more harm-avoidant and less self-directed than women without eating disorders, even following recovery (Klump, Strober, Bulik et al., 2004). Equally high levels of perfectionism have been observed in both anorexia and bulimia nervosa (Garner, Olmsted, & Polivy, 1983). Studies have shown that perfectionist traits remain high after recovery from anorexia nervosa (e.g., Pia & Toro, 1999), and retrospective studies provide evidence of high levels of perfectionism prior to onset (Fairburn et al., 1999). Obsessive traits are reported to be more prominent in women with eating disorders when compared to healthy controls (Bulik, Sullivan, Joyce, & Carter, 1995). Obsessive-compulsive personality disorder (OCPD), characterised by rigidity, perfectionism and inflexible thinking, has shown high co-morbidity with eating disorders, especially in restricting anoretics (Serpell & Troop, 2003). A study

of recovered anoretics found 15% of the sample to meet the diagnostic criteria for OCPD (Matsunaga, Kaye, & McConaha, 2000). These results suggest that some personality styles reflect stable traits, which may predispose individuals to eating pathology.

A number of studies have shown that individuals with eating disorders report more stressful life events in their childhood than controls. Specifically, events involving disruption of family or social relationships, or a threat to physical safety, were especially common among bulimia nervosa cases (Schmidt, Tiller, Blanchard, et al., 1997b; Welch, Doll, & Fairburn, 1997). Many studies have researched the association between childhood sexual abuse and eating disorders, with mixed results, partly due to methodological differences (Schmidt, Humfress, & Treasure, 1997a). However, to date, reviews of the research have concluded that childhood sexual abuse does not seem to be a specific risk factor for eating disorders (Schmidt et al., 1997b; Stice, 2002). There is evidence to suggest that other forms of abuse in childhood may be significant in the development of eating disorders. Andrews (1997) found childhood abuse, including physical and sexual abuse, to show a significant association with bulimia. Further analysis revealed that this relationship was mediated by bodily shame, a finding consistent with earlier research showing bodily shame to be the mediating factor between childhood abuse and chronic or recurrent depression (Andrews, 1995). Similarly, Murray and Waller (2002) found shame to be particularly significant in the relationship between bulimic symptoms and intrafamilial sexual abuse in childhood.

It may not be the presence of life events in an individual's past per se that is significant but how these are managed. Women with anorexia nervosa have a tendency towards an avoidant coping style, whereas bulimia nervosa patients tend to employ a strategy of cognitive rumination in response to difficulties, both of which are potentially maladaptive in the long term (Troop, Holbrey, & Treasure, 1998). In addition, individuals with eating disorders report poorer support networks than controls, either in terms of smaller networks, as in anorexia nervosa, or less satisfactory relationships, in bulimia nervosa (Tiller, Sloane, Schmidt et al., 1997).

It is likely that a number of psychological factors play a role in the development of eating disorders; however, studies have tended to explore these factors in isolation. Possibly significant interactions between factors are overlooked due to this limited methodology. It is unlikely that any one characteristic in isolation will have a causal influence on eating disorder development. This approach is, therefore, too simplistic to draw any meaningful connections between specific psychological factors and the development of eating pathology. Future research should focus on integrating identified factors more fully.

iv) Family Factors

There is some suggestion that eating disordered individuals show more family pathology than healthy controls, be that in terms of high paternal over-protectiveness (Calam, Waller, Slade, & Newton, 1990), low maternal and paternal care (Palmer, Oppenheimer, & Marshall, 1988), or some other factor. A review of the role of childhood family functioning in eating disorders concluded that those with bulimic disorders seem to have poorer family functioning than restrictors, and in bulimia nervosa, high levels of family disturbance seem to be associated with greater severity and chronicity of bulimic symptomatology (Schmidt et al., 1997b). However, results are inconclusive when compared with psychiatric controls, suggesting a non-specific relationship between family functioning and psychological difficulties, although the pattern of family functioning may differ across the groups (Schmidt et al., 1997b).

Given the complexity of eating disorders it is likely that there is no single causative pathway. Many theorists recognise that greater clarity about cause and maintenance can only be achieved through a better understanding of the interactions between biological, psychological and social/cultural factors (Goss & Gilbert, 2002). The impact of family functioning, biological and cultural factors and the development of predisposing psychological factors such as personality traits, low self-esteem, and shame-proneness may be mediated by early attachment experience. Several studies have used attachment theory to begin to understand the interaction of such diverse aetiological factors in the development of eating disorders (Ward, Ramsay, & Treasure, 2000).

1.1.3 Attachment

Attachment theory (Bowlby, 1969) is based on the concept that human beings are innately programmed to seek and form attachments with others, with attachment being defined as a close enduring affectional bond or relationship between two people, usually mother and child (Ainsworth, 1989). Attachment behaviour, such as distress at separation from attachment figures, is viewed as adaptive and protective. Attachment develops as a function of a caregiver's general sensitivity to an infant's signals. Thus, Bowlby suggested, the child learns about the caregivers' emotional and physical availability and responds accordingly. If the parent is emotionally in tune with the child and responds appropriately to their behaviours, a secure attachment will develop whereby the child trusts the parent to fulfil their needs. However, when the parent is neglectful or inconsistent in parenting, the child's needs are not fully met and they develop negative beliefs about themselves and others as a result. The theory assumes that the developing infant's early attachment-related experiences are, in time, represented cognitively as an internal working model of self and other. Childhood attachment models are assumed to function as prototypes for later social relations, and to affect cognitions that bias the adult's perception, information processing and interpersonal behaviour, producing schema-consistent experiences.

Poor attachment bonds have been related to the later development of psychopathology. Research has consistently found significantly more insecure attachment among depressed groups (e.g., Parker, Tulping, & Brown, 1979) and personality disorder groups (e.g., West & Sheldon, 1988) when compared with healthy controls.

Attachment has been found to be implicated in a range of psychological functions, including many of those affected in eating disorders, for example, interpersonal competence, regulation of affect and maintenance of self-esteem (Ramacciotti, Sorbello, Pazzagli et al., 2001). A recent study concluded that body image disturbance and alexithymia (two major clinical features in eating disorders) are associated with, and to some extent predicted by, insecure attachment to early

caregivers (De Panfilis, Rabbaglio, Rossi, et al., 2003). Two reviews of the attachment research in eating disorders have revealed overwhelming evidence for insecure attachments within eating disordered populations (Ward et al., 2000; O'Kearney, 1996). Ward et al. (2000) also found that, using the adolescent version of the "gold standard" Adult Attachment Interview (AAI; Candelori & Tambelli, 1992, cited in Ward et al., 2000), distinct attachment styles distinguished the anorexic patients from the bulimic patients. Specifically, restricting anorexic patients tended to be classified as having a dismissive attachment style, whereas those with bulimic behaviours, for both patients with a diagnosis of anorexia nervosa and bulimia nervosa, tended to have more preoccupied attachment styles. However, evidence for this is inconclusive.

Ward and Gowers (2003) warn about the problems with attachment research, highlighting that, although the quality of research in this area has improved significantly over the past ten years, there are still problems in terms of terminology used to describe various attachment categories and the multiple methods of measurement available. These make it difficult to draw firm conclusions when comparing studies. Despite this, the overwhelming evidence to suggest a link between insecure attachment and subsequent development of eating disorders cannot be disputed.

The more recent review (Ward et al., 2000) did not include studies based on the Parental Bonding Instrument (Parker, Tulping and Brown, 1979) as this measure is thought to only indirectly relate to Bowlby's attachment constructs, although it does tap into childhood experiences. As such, studies using this measure will be explored separately.

1.1.4 Parental Bonding and Eating Disorders

The Parental Bonding Instrument (PBI; Parker et al., 1979) has been used in numerous studies and generally the concept of affectionless-control (low care and high control) has been shown to be consistently associated with various neurotic disorders (e.g. Gerlsma, Emmelkamp, & Arrindell, 1990; Shah & Waller, 2000),

some psychotic disorders (Helgeland & Torgersen, 1997), drug dependency (Torresani, Favaretto, & Zimmerman, 2000) and vulnerability to adolescent suicide (Martin and Waite, 1994).

Research using the PBI in bulimia nervosa subjects has highlighted a common perception of poor "bonding" (low care and high protection levels) in parent-child relationships (Calam, et al., 1990). These researchers specifically found that eating disordered patients recalled that both parents were lower in perceived care/warmth and, that their fathers (but not their mothers) were overprotective. Other studies using the PBI in bulimic and anorexic patient groups consistently report low levels of perceived care from both parents (e.g., Palmer et al., 1988; Pole, Waller, Stewart, & Parkin-Feigenbaum, 1988) but levels of overprotection found across the studies were less consistent. For example, Palmer et al., (1988) found normal levels of perceived parental protection within their British bulimic and anorexic groups, however, this study was criticised for using an Australian control sample, who have been found, in general, to view their parents as more controlling than British people (Calam et al., 1990). A study by Leung, Thomas, & Waller (2000a) suggests paternal overprotectiveness might be more significant in the development of bulimia nervosa than anorexia nervosa. Their findings showed mothers of anorexic and bulimic patients were perceived as more overprotective than controls, but the bulimic group perceived their fathers to be more overprotective than did either the anorexic group or controls.

Bulik, Sullivan, Fear, & Pickering (2000) suggested that the chronicity of anorexia nervosa may also be linked to unhealthy parental bonding, particularly low levels of maternal and paternal care.

The research clearly suggests that poor perceived parenting, especially low care from either parent, can make people vulnerable to developing some form of psychopathology in later life. The consistency across research findings also indicates that the PBI is a valid and reliable tool for the measurement of this vulnerability factor (Heiss, Berman, & Sperling, 1996). However, the PBI may not be useful for

predicting different psychopathologies. Although there is concern over the reliability of adult memories of early parenting, a review of studies suggests that such recall is less biased by mood effects and more reliable and consistent than is sometimes thought (Brewin, Andrews, & Gotlib, 1993). They conclude that although improved methodologies are needed to explore the impact of adverse experiences in childhood on subsequent adult psychopathology, the use of recall remains a valid and useful approach.

1.1.5 Core Beliefs and Eating Disorders

Schema therapy developed by Young and colleagues (1990, 1999) blends elements from cognitive-behavioural, attachment, Gestalt, object relations, constructivist, and psychoanalytic theories into a unifying conceptual and treatment model (Young, Klosko, & Weishaar, 2003). It expands on traditional cognitive-behavioural therapy by placing greater emphasis on exploring the childhood and adolescent origins of psychological problems. The fundamental aspect of this approach is the exploration of core beliefs people hold about themselves. Young (1994) describes core beliefs (or "early maladaptive schemas") as enduring patterns of thought, emotion and behaviour, which are developed as a result of early experiences and relationships with caregivers. Thus, it is hypothesised that experience in the first few years of life, and hence perceived parenting, will be closely associated with the development of such schemata. Schemata are driven by unconditional beliefs about the self. For example, a child who receives a low level of maternal care may conclude that this is because they are inherently defective and behave in ways that are self-destructive and self-punitive.

Young (1994) developed a self-report measure, the Young Schema Questionnaire (YSQ; Young & Brown, 1990), to measure these early maladaptive schemata. Using this measure, many studies have explored the content of schemata found in eating disordered populations, particularly bulimic samples, compared to healthy controls (e.g. Waller, Ohanian, Meyer, & Osman, 2000; Waller, Dickson, & Ohanian, 2002; Waller, 2003). All studies show bulimic women to score higher on all identified schemata except Entitlement. Similar findings are reported with mixed eating

disorder groups with no significant differences being found between anorexic and bulimic disorders (e.g., Leung, Waller, & Thomas, 1999).

Different schemata have been found to be significant in predicting severity of symptoms across the studies. For example, schemata reported to be important in bingeing are Emotional Inhibition (Waller et al, 2000) and Social Undesirability, while purging behaviours have been found to be predicted by Defectiveness/Shame (Waller et al., 2000; Leung, Waller, & Thomas, 2000b), Failure to Achieve (Leung et al., 1999), and Abandonment (Waller, 2003) schemata. Other studies have found no association between symptom severity and specific schemata (Gongora, Derksen, & van Der Staak, 2004)

Waller, Meyer, Ohanian et al. (2001b) assessed schemata in bulimic women with and without a history of sexual abuse. Abused bulimics had significantly higher scores on 9 of the 16 schemata measured, and had higher levels of bingeing and vomiting. Analysis of covariance revealed that these 9 schemata accounted for the differences in levels of symptomatology between the two groups, suggesting that the beliefs act as mediators in the relationship between abuse and severity of bulimic behaviours. In addition, within the abused group, the Emotional Inhibition schema (which leads individuals to constrain their actions, feelings and communication in order to prevent criticism or losing control of their impulses) correlated with frequency of bingeing. This provides evidence for the view that bingeing has the function of distracting from intense and distressing emotions. Also, schemata relating to perceived defectiveness and fear of abandonment correlated with frequency of vomiting. It is unclear from this study whether the vomiting was a response to the schemata or if the feelings of shame and fear of rejection arose from the vomiting, or both.

Similarly, Hartt and Waller (2002) studied bulimic women to examine the relationship between the severity of four forms of abuse (emotional, physical, sexual abuse and neglect) and bulimic pathology. Severity of abuse was not associated with more severe bulimic pathology, but was associated with more pathological scores on 6 of the 15 core beliefs. Different forms of abuse showed different patterns of core

beliefs. Emotional abuse and neglect were associated with beliefs about Mistrust/Abuse, Vulnerability to Harm, and Emotional Inhibition. Emotional abuse was also linked with beliefs of Defectiveness/Shame. Sexual abuse was related to beliefs about Mistrust/Abuse, Emotional Deprivation, Emotional Inhibition and Subjugation. Finally, the Emotional Deprivation schema was associated with physical abuse. Young (1994) proposes that individuals are likely to develop a Defectiveness/Shame schema if their parents are critical and make them feel unworthy. These results suggest that the insidiousness of emotional abuse may mean that individuals are more likely to attribute such experiences to their own lack of self-worth, whereas other forms of abuse may be more easily attributed externally. The association between the Defectiveness/Shame schema and neglect just failed to reach significance, indicating that the same may be true of this form of abuse.

The inconsistency found across these studies, and others exploring core beliefs, in terms of the role of specific schemata in eating pathology may be due to the lack of detail obtained about the early experiences of the sample. Results may be affected by the sample having experienced various and multiple types of abuse and these resulting in different schemata. It seems likely that many people will have experienced more than one form of abuse, thus confounding the data.

1.1.6 Early Maladaptive Schemata, Perceived Parenting and Eating Disorders

With mounting evidence to support the link between family functioning and eating psychopathology, researchers have begun to consider possible mediating mechanisms. Much of this research has focused on bulimic psychopathology and drawn upon the schema theory proposed by Young (1990) and Young et al., (2003). These authors view negative childhood experiences as the primary origin of Early Maladaptive Schemata. The schemata that develop earliest and are the strongest typically originate in the nuclear family. They view other influences, such as peers, school, groups in the community, and the surrounding culture, as becoming increasingly important as the child matures which may also lead to the development of schemata. However, schemata developed later are generally not as pervasive or powerful (Young et al., 2003).

The studies exploring the relationship between these factors have looked at both clinical (Leung, et al., 2000a) and non-clinical samples (Meyer & Gillings, 2004; Turner, Rose, & Cooper, 2005). Results have provided strong suggestion for the mediating role of maladaptive schemata (as measured by the Young Schema Questionnaire, YSQ; Young & Brown, 1990) in the relationship between family functioning and eating psychopathology, with various schemata being implicated, e.g. Mistrust/Abuse (Meyer & Gillings, 2004), Dependence/Incompetence (Turner et al., 2005), and Defectiveness/Shame (Leung et al., 2000a; Turner et al., 2005). Murray, Waller and Legg (2000) also explored the role of shame in the relationship between perceived parental bonding and bulimic symptomatology in a non-clinical sample, using different shame measures. Findings were compatible with a model where seeing one's father as underprotective seems to have a direct influence on internalised shame (internal attributions about the self resulting from chronic exposure to shameful situations over time; Cook, 1994). Whereas perception of ones father as overprotective only leads to higher levels of internalised shame when the individual is already predisposed to be relatively shame-prone. In addition, the resulting shame has an impact on bulimic symptoms.

The research evidence generally demonstrates that pathological schemata are present in individuals with eating disorders, and that they are associated with the pathogenic factors that are predicted by the broad schema model (e.g., negative parenting; physical and emotional trauma). Future research in this area could enhance our current knowledge by using clinical eating disordered samples, and attempting to evaluate the interactions between parenting experiences, core beliefs, and eating disorder pathology. It appears that several schemata may be implicated in this complex relationship; however, the empirical literature clearly indicates the usefulness of further exploration of Defectiveness/Shame within eating disordered populations.

1.2 Shame

Much of the literature about shame tends to be segregated within particular theoretical or research camps, which results in a less coherent knowledge base around this complex affect.

1.2.1 Definition

An agreed and concise definition of shame is difficult to find within the current literature, often being described in terms of how it differs from guilt or embarrassment, all of which are viewed as self-conscious emotions (e.g., Tangney, 1990; Niedenthal, Tangney, & Gavanski, 1994; Tangney, Miller, Flicker, & Barlow, 1996). For this reason, shame is perhaps best understood in terms of how it is experienced.

i) Experience of Shame

Lindsay-Hartz (1984) conducted in-depth interviews, with members of the general population, to gain qualitative information regarding the experiences of shame. All of the interviewees emphasised that they felt a strong desire to hide, e.g., 'You want to be where you cannot be seen', 'You feel like burying yourself' (p. 692). Another common theme was of feeling small and lacking power and control, e.g., 'I probably felt small and inadequate....I wasn't enough.', 'I physically felt small and helpless' (p. 694).

Gershen Kaufman describes shame from the perspective of affect theory (Tomkins, 1962; 1963; 1982; 1984; 1987, cited in Kaufman, 1989). Kaufman claims there is no more deeply disturbing affect than shame;

> Shame is the affect of inferiority. No other affect is more central to the development of identity. None is closer to the experienced self, nor more disturbing. Shame is felt as an inner torment. It is the most poignant experience of the self by the self... (Kaufman, 1989; p.17).

Thus, shame leads a person to feel deficient about their very being, fundamentally flawed.

> To live with shame is to feel alienated and defeated, never quite good enough to belong. And secretly the self feels to blame; the deficiency lies within. (Kaufman, 1989; p.25).

There is a sense that this defectiveness is on display, leading the shamed person to want 'to hide, to disappear, or even to die' (Lewis, 1992; p.2). The experience of shame is communicated by individuals by the head hanging, the eyes lowered or gaze averted, blushing, spontaneous movement is interrupted, and speech is silenced, all of which can result in further shame about the shame (Kaufman, 1989).

ii) Shame and Guilt

Traditionally in the literature, distinctions between shame and guilt have not been made clear, with the terms sometimes being used interchangeably. Although shame and guilt are both negative and self-conscious emotions, the focus of each is different, and each leads to different affective experiences (e.g. Tangney, 1991). The focus of guilt is on a specific behaviour or action (or failure to act), leading the person to feel bad about what he or she has done and there is generally a sense of tension, remorse or regret that may motivate reparative behaviour (Sanftner, Barlow, Marschall, & Tangney, 1995). In contrast, the focus of shame is on the entire person, the bad feeling experienced as a reflection of a bad self (Lindsay-Hartz, 1984). Lewis (1971) describes shame as arising from the self perceiving itself to be inadequate in some way (e.g., worthless, incompetent, powerless, or bad).

1.2.2 Theories

There are many theories explaining various aspects of shame, e.g., how, why and when it develops, its role in the development of psychopathology, how shame is related to emotion and cognition and so on. As such, only the theories relevant to the current research are explored, while highlighting the fact that this is by no means an exhaustive review.

i) Developmental Theories

Early theories of cognitive and emotional development suggest that thoughts and feelings about the inner self, and hence the experience of shame, are not possible

until middle childhood (Piaget, 1954). However, there is now empirical evidence to suggest that shame emerges early and is present by toddler age (Mills, 2005). Developmental theories of shame fall into three general theoretical orientations: functionalist, cognitive attributional, or object relations/attachment. These all view cognitive development and interaction with significant others as the mechanisms for the development of shame, but differ largely in terms of focus.

ii) Functionalist Theories

Functionalist theories (e.g., Barrett, 1998) are based on Darwin's theory of evolution and the idea that emotions serve to increase chances of survival. The proposed function of shame is to maintain others' acceptance and preserve self-esteem, by learning and maintaining social standards (Barrett, 1998). Some theorists propose that self-conscious emotions are constructed from basic emotions (those present at birth) through the reflected appraisals of significant others (Campos, Frankel, & Camras, 2004). As such, shame is hypothesised to arise from the communication of disappointment, disapproval, disgust, or contempt expressed by parents (or significant others) in response to a particular action. Reflected appraisals come to be internalised as the sense of self develops.

iii) Cognitive-Attributional Theories

According to attributional models (e.g., Lewis, 1992), different types of self-attribution are accompanied by different emotions. Thus, shame is seen to be elicited by a global self-attribution of failure, a view of the entire self as being unlovable and fundamentally flawed. This is conveyed through socialisation and the child's interpretation of reactions by significant others. Crucially, it is the cognitive evaluation that elicits the emotion as opposed to an actual event (Lewis, 1992).

iv) Object Relational/Attachment Theories

The object relational/attachment model incorporates central features of affect theory, for an overview of this theory see Mills (2005) and Kaufman (1989).

Tomkins (1963), Kaufman (1989), and Nathanson (1994) argue that shame is an affect associated with the interruption and sudden loss of positive affect, being triggered, from birth, by disruption in the infant's sense of connectedness. However, others have argued that this interruption of positive affect is not unique to shame and can occur in response to other negative affects, such as fear and sadness (e.g., Gilbert, 1998a).

Kaufman (1989), drawing on Tomkins' (1963) work in affect theory, identified experiences which were potentially shame inducing. These include, expressions of parental anger; misattunement between child and caregiver; methods of control, by parents, peer group or school involving direct shaming (e.g., "you should be ashamed of yourself" or looks of disgust); disappointment in the parents face at the child failing a given task; not meeting cultural ideals; and a sense of powerlessness in adulthood. He also developed the idea of internalised shame, describing this as a "shame-bound" personality or "shame-based identity". He argues that internal representations of the expression of affects, interpersonal needs, drives and competencies become linked with memories of shame, through repeated experiences of shaming, particularly in childhood. When this happens it becomes impossible to experience these affects, needs, drives and competencies without experiencing shame and the child develops a generalised sense of being unworthy and inferior which persists into adulthood. Therefore, according to Kaufman, someone who experiences a significant degree of internalised shame not only experiences shame frequently in relation to specific situations, but tends to engage in generalised negative self evaluations and carries a sense of personal inadequacy.

Schore's (1996, 1998) regulation theory integrates attachment theory with affect theory and developmental neurobiological research. Through attuned affective communication, the caregiver helps regulate the infant's inner states. By arousing alertness and positive affect in the infant and modulating hyperaroused states within the cognitive limits of the child, the caregiver helps the infant to feel safe and manage intense emotions and thus, helps the child develop affect regulation. Schore suggests that the attachment style the child develops is essentially the child's style of

shame regulation. When the parent is consistently emotionally inaccessible, support for affect regulation (raising low arousal or modulating high arousal) is lacking and shame serves to help the child self-regulate by disengaging. The parent's unavailability or rejection leads the child to withdraw emotionally and inhibit emotions that activate the need for attachment. This pattern results in insecure-avoidant attachment, which leaves the child anxious, inhibited and prone to conscious shame. In contrast, inconsistent parenting interferes with the child's ability to disengage and moderate arousal and results in insecure-resistant attachment, high negative emotions, impulsivity and shame that is less conscious. Few studies have explicitly explored the link between attachment style and subsequent levels of shame. Those that have, support the prediction that high shame individuals tend to have insecure attachment (Lopez, Gover, Leskela, et al., 1997; Gross, & Hansen, 2000).

v) Biosocial Theory (Gilbert, 1989; 1992)

This perspective draws on the evolutionary principle of social ranking and the adaptive ability to evaluate oneself against others in terms of strength, size, and so on, with the view to challenging those who are weaker, but submitting to those stronger, than ourselves (Gilbert, 1997). This process has evolved within humans to become more sophisticated and involve characteristics such as power, respect, attractiveness and status as the defining aspects of what is considered dominant, or superior. Gilbert (1989; 1992) suggests that shame is related to rank and status judgements; of feeling inferior, powerless or bad in comparison with others. He views shame behaviours (e.g., lowered head, gaze averted etc.) as signalling subordination, which may have provided a protective function for our ancestors and may continue to provide this function for submissive animals (Gilbert, Pehl, & Allan, 1994). In humans, rank/status is often achieved by eliciting positive reinforcers from others and feeling valued by others. Thus, humans are motivated to be seen as attractive (not only physically) by others in an attempt to access social wealth such as finding a partner, emotional and practical support, which consequently improves survival potential. When we feel shame, there is a belief that we have elicited negative feelings and thoughts in others, which could lead to their disengagement or

rejection (Gilbert, 2002). One of the most central aspects of shame pertains to individual concerns about how one is regarded by others (e.g., thinking that others look down on the self), but it can also be internally focused on the self (negative self-devaluations; Gilbert, 1998a, 2002; Cheung, Gilbert, & Irons, 2004).

1.2.3 Shame and Psychopathology

> In the context of normal development, shame is the source of low self-esteem, diminished self-image, poor self-concept and deficient body image...In the context of pathological development, shame is central to the emergence of alienation, loneliness, inferiority and perfectionism. It plays a central role in many psychological disorders...Sexual disorders and many eating disorders are largely disorders of shame. (Kaufman, 1989; p.viii)

Research by June Tangney and colleagues provide evidence to suggest that shame-prone individuals have pervasive difficulties in interpersonal relationships (Tangney, 1991; Tangney, Wagner, Fletcher, & Gramzow, 1992a; Tangney, Wagner, & Gramzow, 1992b). Specifically, shame-proneness was found to be associated with impaired empathic abilities, a tendency to externalise blame, and frequent bouts of anger and hostility. These studies were correlational, thus causality cannot be assumed. In addition, the studies were conducted on non-clinical samples and so may have produced a different pattern of results to what might have been observed in a clinical population. Despite these limitations, the results suggest a link between shame and psychological maladjustment that warrants further investigation.

Gilbert (1998a) reports a huge overlap between the processes involved in shame and social anxiety, current measures of each are found to be very highly correlated (e.g., Gilbert, Pehl, & Allan, 1994). Hyde (2003) found shame to play a unique role in social anxiety leading to the conclusion that shame is central to this condition.

Significant and substantial correlations have been consistently demonstrated among various questionnaire measures of shame and depression (e.g., Allan, Gilbert, & Goss, 1994; Harder, Cutler, & Rockart, 1992; Tangney et al., 1992b). However, most of this research has relied on cross-sectional design, which has been criticised for inadequately distinguishing factors as antecedents, concomitants or consequences

of depression (e.g., Barnett & Gotlib, 1988). Andrews (1998) argues that this is of particular concern when exploring shame and depression due to the high degree of item overlap across scales measuring these constructs. A more recent questionnaire study (Andrews, Qian, & Valentine, 2002) and interview studies (Andrews, 1995; Andrews & Hunter, 1997) have since demonstrated a prospective association between shame and depressive symptoms suggesting that shame plays a significant role in the onset and course of depression. This indicates that the relationship found between shame and depression measures is not simply an artefact of the overlap of general negative affectivity apparent across these scales. In addition, shame has been found to be uniquely associated with depression beyond depressogenic attributional styles in female and male undergraduates (Tangney et al, 1992b), suggesting that it contributes additional vulnerability beyond that of cognitive style itself.

Shame has also been found to be a major contributing factor to alcoholism (e.g., Brown, 1991), hostility (e.g., Tangney et al., 1992a), suicide (e.g., Mokros, 1995), and personality disorders, especially narcissistic (e.g., Kinson, 1987; Mollon, 1984), and borderline personality disorders (Nathanson, 1994).

The literature is unclear as to what role shame may play in the development of these problems.

1.3 Shame and Eating Disorders

Although often mentioned in the eating disorders literature, there has been very little empirical investigation of shame in clinically eating disordered populations.

Sanftner et al. (1995) found shame to be positively correlated with eating disorder symptoms, in a non-clinical sample, but unexpectedly found guilt to be negatively correlated with these. However, the Test of Self-Conscious Affect (TOSCA; Tangney, Wagner, & Gramzow, 1989), which provides a global assessment of these affects in everyday life, was used in this study to measure proneness to shame and guilt. It is possible that this measure was too general to pick up the sources of guilt relevant to eating disorders. In support of this are results from a study by Bybee,

Zigler, Berliner and Merisca (1996), which found eating disturbances were positively related to guilt feelings around eating and exercise, but were unrelated to a global proneness to guilt. As the Sanftner et al. (1995) study is correlational, causality cannot be assumed; therefore, it is not clear whether the high shame results in a vulnerability to eating disorders or if the shame is in response to the eating disorder symptomatology, or both. Alternatively, a third factor may affect both one's tendency to respond with shame and one's likelihood of developing an eating disorder.

Burney and Irwin (2000) used a non-clinical sample to explore the relationship between eating disorder symptomatology, and shame and guilt using a measure of global shame- and guilt proneness (TOSCA), a measure of shame and guilt associated specifically with eating contexts and a measure of shame associated with the body. They found that severity of eating-disorder symptomatology was related to shame and guilt in eating contexts and to shame about the body but not to any global proneness to shame or guilt. In addition, they found that shame in eating contexts (with the guilt component held constant) is much more closely related to the severity of eating disturbance than is guilt in eating contexts (with the shame component held constant). While urging caution in drawing causal inferences from such a correlational study, the authors suggest it is plausible that shame and guilt are likely to be consequences rather than causes of eating disordered behaviour, whereas body shame is more likely to have a causal role.

Gee and Troop (2003) found shame to be independently associated with depressive symptoms and eating disorder-related concerns in a non-clinical sample. This supports the link between shame and eating pathology found in other studies, providing evidence that the relationship is not merely a result of associations between these factors and depression. Obviously, care should be taken in generalising these results to clinical samples. These authors suggest research exploring the role of shame in eating disorders to establish whether it represents a vulnerability to developing eating pathology, a consequence of the disorder or part of the phenomenology of the disorder itself.

Other studies, using non-clinical samples, have considered shame specifically involving bodily and eating concerns. Three have found significant correlations between body shame and disordered eating (McKinley & Hyde, 1996; Noll & Fredrickson, 1998; Tiggemann & Lynch, 2001). Andrews (1997) investigated bodily shame in relation to clinically diagnosed eating disorders, and found a strong association between an interview measure of bodily shame and bulimia in a community sample of young women. This effect remained even after controlling for bodily dissatisfaction.

This research on non-clinical samples suggests a strong role for shame in eating disorders, however, the findings cannot be reliably generalised to eating disorder populations. In addition, only one study controls for depression (Gee & Troop, 2003), which must be a limitation of the current research given the evidence of strong relationships between shame and depression (e.g., Andrews et al, 2002) and eating disorders and depression (e.g., Fairburn & Harrison, 2003).

Hayaki, Friedman, and Brownell (2002) compared the role of shame at sub threshold and at clinical levels of bulimic severity, controlling for depression and guilt (Hayaki et al., 2002). For both samples, shame was found to be significantly and positively related to bulimic symptoms. However, this relationship was only found to be independent of depression and guilt in the non-clinical sample. This might be due to the use of the TOSCA as the measure of shame and guilt proneness for the reasons presented above. Also, shame and depressed mood are very highly correlated and the measures used may not have been sensitive enough to distinguish between them.

Another study demonstrated a significant relationship between shame and eating disorders, even after controlling for depressive symptomatology. Swan and Andrews (2003) compared levels of shame, using a measure that assessed aspects of shame including bodily characteristics, non-physical characteristics, general behaviour and levels of shame around eating, in women who had received treatment for an eating disorder with non-clinical controls. Findings showed the eating disorder group scored significantly higher than controls on all the aspects of shame. Higher levels

of characterological and bodily shame and shame around eating were also apparent for the women who had recovered from their eating disorder, compared to the controls. Levels of bodily shame did not differ between the recovered and symptomatic women, although characterological shame and shame around eating were significantly lower in recovered women compared with those still symptomatic. These findings suggest that shame may be long-lived and resistant to change. This study also demonstrated that high characterological shame and shame around eating were associated with higher levels of non-disclosure of important issues during contact with professionals, especially in relation to eating disorder symptoms. This begins to highlight implications of shame in relation to the therapeutic relationship, treatment outcome and relapse potential.

1.3.1 Sources of Shame in Individuals with Eating Disorders

Many authors mention shame and guilt as feelings that are likely to precipitate and follow episodes of bingeing and purging (e.g., Fairburn, 1981; Johnson & Larson, 1982; Lingswiller, Crowther, & Stephens, 1989), however it is difficult to ascertain whether these emotions are primarily a cause or effect of the disordered behaviours.

i) Shame Around Behaviours

Many patients are ashamed of having an eating disorder. This shame may be linked to body shame, to bingeing and purging behaviour, as well as to the fact that one is shameful about not being able to eat in a natural way. Skarderud (2003) views the basis as being the loss of self-control experienced by the person with the eating disorder, due to the high value placed on self-control in modern cultures. Similarly, Weiss, Katzman and Wolchik (1994) state that bulimics feel ashamed of their eating habits and that this can be overwhelming. As such, they tend to binge and purge in secret and live in fear of being "found out". This can lead to them becoming isolated as they fear repelling others with their "abnormal" behaviours. This can reinforce their sense of being "different", prevent them from gaining support for their difficulties and contribute to their low self-esteem. In this way, the authors view the shame as a maintaining factor for the bulimia. Likewise, in anorexia nervosa, individuals report shame and disgust following eating objectively small amounts of

food. Patients often describe feeling betrayed by their bodies' need to eat (Goss & Gilbert, 2002).

Frank (1991), using a sample of college students, found that women with eating disorders experience more shame and guilt in relation to eating (specifically food, weight, appetite and hunger) than do either normal or depressed women. She concluded that such shame and guilt differentiate the eating disorders from other psychopathology. From this it can be hypothesised that women with anorexia nervosa may feel ashamed of their desire for food. In support of this is the finding that shame regarding eating pathology has been identified as the strongest predictor of eating disorder severity (Burney & Irwin, 2000).

ii) Shame From Early Experiences

Some view the bingeing, purging and restricting behaviours as maladaptive means of regulating painful thoughts and feelings and coping with powerful negative emotions, such as shame (e.g., Heatherton & Baumeister, 1991; Schupak-Neuberg, & Nemeroff, 1993), arising from negative past experiences. This perspective views the shame as having a more causal role.

Young and colleagues (1994, 2003) consider Defectiveness/Shame to be one of the most powerful and damaging schemata. They view this as typically originating in rejecting and critical family environments and resulting in individuals viewing themselves as flawed and unlovable, and experiencing chronic feelings of shame about who they are.

a) Family Factors

Lutwak and Ferrari (1997) explored the association between perceptions of parental bonding style during childhood (as measured by the PBI) and levels of shame at young adulthood. Although the magnitudes of the coefficients were small, shame was significantly negatively related to both maternal and paternal care and affection and positively related to maternal protectiveness and control. Further analysis revealed that the best predictors of shame were fear of negative social evaluation,

social avoidance, low paternal care, and maternal protectiveness. These variables explained 41% of the variance in shame. Chorpita and Barlow (1998) suggest that excessive psychological control by parents or significant others could engender shame, either indirectly by treating the child as weak and incapable (overprotection) and leading to a sense of uncontrollability and inefficacy, or directly by devaluing the child (e.g., love withdrawal, criticism, belittling, ignoring, neglecting) and fostering a sense of not being important, close or valuable to others. Andrews (2002) has shown early abusive life experiences to be associated with body shame in chronic depression. Given the evidence associating poor perceived parenting and subsequent eating disorders, it is possible that the high levels of shame observed in individuals with eating disorders has its origins in these negative early experiences.

Goss and Gilbert (2002) suggest the traumatic histories or neglect often described by individuals with disordered eating may mean they have not been given the opportunity to learn alternative methods for discriminating between or regulating affective states. Alternatively, the expression of negative emotions may have led to actual or perceived physical rejection or attack. Either way, the individual is unable to tolerate powerful negative emotions and develops the maladaptive strategies of bingeing, purging or restricting food intake to help cope with these. These behaviours provide short-term distractions from the intolerable affects, either by blocking the thoughts and emotions (Heatherton & Baumeister, 1991) or by providing a sense of achievement from eating control.

Kaufman (1989) views eating disorders as being rooted in shame. The origin of this shame is thought to be dysfunctional family interactions, especially in relation to food and meal times. Both bulimic and anoretic individuals' behaviours are seen as responses to the displacement of deep internalised shame about the self on to food. In anorexia nervosa, the person is disgusted by food and their drive to eat, thus they actively reject food. Kaufman (1989) views the anoretics' attempts to control food as an effort to control the perceived sources of shame, i.e. the self. In bulimia nervosa, shame is present at both the bingeing and purging phases. Bingeing is viewed as a substitute for shame-bound interpersonal needs, food being used to

"anaesthetise" the longing to be loved and to fill feelings of emptiness inside. Purging then occurs as an attempt to rid the self of the shameful food but results in disgust and magnification of the shame. Kaufman believes that this continues until the shame peaks and burns out leaving the bulimic feeling cleansed and temporarily purged of food and shame. From this perspective, the shame arises from early experiences but forms an integral part of the disorders. There is no empirical evidence currently available to support this view.

b) Bullying/Teasing

A number of cross-sectional studies have examined the consequences of being a victim of bullying. In a meta-analysis of many such studies, Hawker and Boulton (2000) reported that victimisation related strongly and significantly to depression, fairly strongly to lower social and global self-esteem, with a weaker relationship to anxiety.

Research linking bullying and/or teasing to eating disorders has focused on the role of teasing regarding one's appearance on subsequent body image (e.g., Cattarin & Thompson, 1994; Thompson, Coovert, & Stormer, 1999). These authors cite negative social feedback as a possible aetiological factor in the development of body image-related dysfunction and eating disturbances. Cross-cultural studies have demonstrated that teasing about weight and size either mediate or partially mediate the relation between overall size (BMI) and body image disturbance (Lunner, Wertheim, Thompson, et al., 2000; van den Berg, Wertheim, Thompson, & Paxton, 2002). In turn, body dissatisfaction influences global psychological functioning, restriction and bulimic symptomatology (van den Berg et al., 2002). Given the developmental theories of shame described above, it is reasonable to hypothesise that these experiences may lead to shame about the body, and possibly a global sense of shame. There is however, a dearth of literature exploring the impact of bullying on the development of shame.

Goss and Gilbert (2002) suggest that for some individuals, experiences of teasing may interact with various personality dispositions, making them vulnerable to eating

pathology. For example, some people may be interpersonally or rejection sensitive (hypersensitive to perceived flaws in relation to others) making it difficult for them to tolerate teasing. Individuals may cope with this by using weight loss/control in an attempt to become more popular, while others may use food to manage their negative emotions and sensitivities to rejection.

A single case series study of six participants with bulimic disorders reported high levels of body shame in a number of participants, leading them to hide their shape with clothes and body posture. Some of these participants had experienced bullying in childhood, which may have resulted in the development of beliefs about themselves as being inherently undesirable and unattractive (Simpson, Bell, Knox, & Mitchell, 2005). These participants also reported secondary shame associated with their loss of control over eating behaviour, viewing this as a sign of weakness.

Clearly there is no consensus as to what the major sources of shame are within eating disordered individuals. Some see proneness to shame as a causal factor in the genesis of eating disorders, while others view shame more as a consequence of having an eating disorder. It is likely that shame is both a cause and consequence of eating disordered behaviours. Skarderud (2003) suggests a basic sense of shame, dysregulating self-esteem, may lead to more shame via the behavioural expressions of an eating disorder. Goss and Gilbert (2002) attempt to make sense of the conflicting evidence and theory by presenting the differential role of shame in both anorexia nervosa and bulimia nervosa in terms of shame and pride cycles.

1.3.2 Shame-pride and Shame-shame Models for Eating Disorders (Goss & Gilbert, 2002).

Support for this view comes from a study, which used semi-structured interviews to investigate the negative self-beliefs of groups of anorexic and bulimic patients and non-eating disordered controls (Cooper, Todd, & Wells, 1998). Higher levels of unconditional negative beliefs were observed in the eating disordered groups. These focused on themes of worthlessness, uselessness, inferiority, being a failure, abandonment and being alone (all of which are central to shame cognition and affect; Goss & Gilbert, 2002). The eating disordered groups also differed from controls in

their more conditional beliefs about eating and the meaning of size and shape. The focus of these beliefs was on the relationship between weight and shape and self-acceptance. Cooper, et al. (1998) hypothesised that dieting was a strategy adopted to manage emotional difficulties arising from aversive early experiences and avoid abandonment or rejection. They noted that dieting helped individuals to feel more successful and in control, while bingeing appeared to provide a distraction from unpleasant thoughts, images, negative self-beliefs and emotional states. They hypothesised that eating disorders represent types of schema compensation and cognitive and emotional avoidance.

Goss and Gilbert (2002) view body shame in restrictors as arising from a general sense of inferiority where changing body shape and controlling desires (such as eating) are seen as solutions. Controlling eating and weight can make them feel proud of themselves and can become a fundamental part of their self-identity. Figure 1 outlines Goss and Gilbert's process model for shame-pride interactions in restrictors. Researched biopsychosocial risk factors are highlighted in terms of subsequent vulnerability to various forms of external and internal shame. Some individuals may feel the need to defend themselves against this, with those prone to anorexia focusing on the body, weight and dietary control as a means of coping. This then sets up a self-perpetuating cycle whereby successful restriction brings pride, while failure activates shame affects and cognitions. Weight loss may be initially met with reinforcing compliments, however, as weight loss continues concern may rise and trigger the need for others to take control. However, this control is resisted, as any change in behaviour will reduce the feelings of pride and risk returning to the shamed-self (fat, unattractive). In turn, the resistance of control becomes associated with their new developing self-identity. Self-identity is then threatened by succumbing to the external pressures.

For people who binge, Goss and Gilbert (2002) hypothesise that eating behaviour can be used to distract the self from shame affect and negative feelings in general, but such lead, in the long term to more shame. Figure 2 outlines Goss and Gilbert's process model for shame-shame interactions in binge eaters. The same

biopsychosocial risk factors are highlighted, but it is noted there may be subtle differences between these and those of restrictors that have not yet been established.

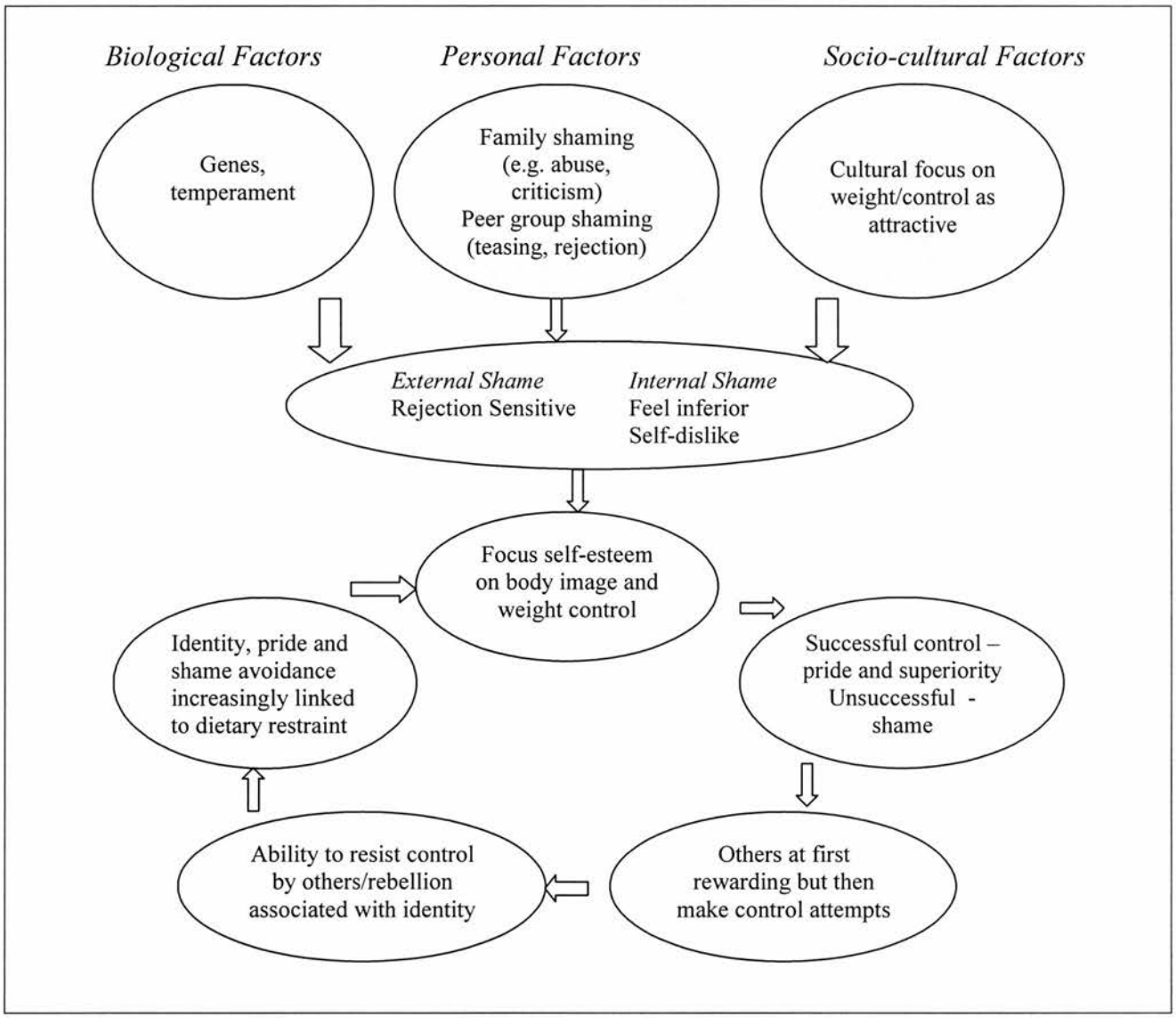


Figure 1 Shame-pride cycle in restricting eating disorders (reproduced from Goss & Gilbert, 2002)

The focus of this model is on the inability to control or tolerate the feelings of shame and other negative affect. The bingeing and purging are seen as occurring in response to intense emotions and as means of gaining some short-term relief from these, which results in the negative reinforcement of the disordered eating. There may also be some positive affect achieved through the sense of rebellion associated with the secret behaviours, which may have increased a sense of separate self-identity outside the gaze of others. However, in the long term, the secrecy and

disordered eating lead to fear of exposure, fear of weight gain and feelings of self disgust, which in turn result in a perpetuation of the shame.

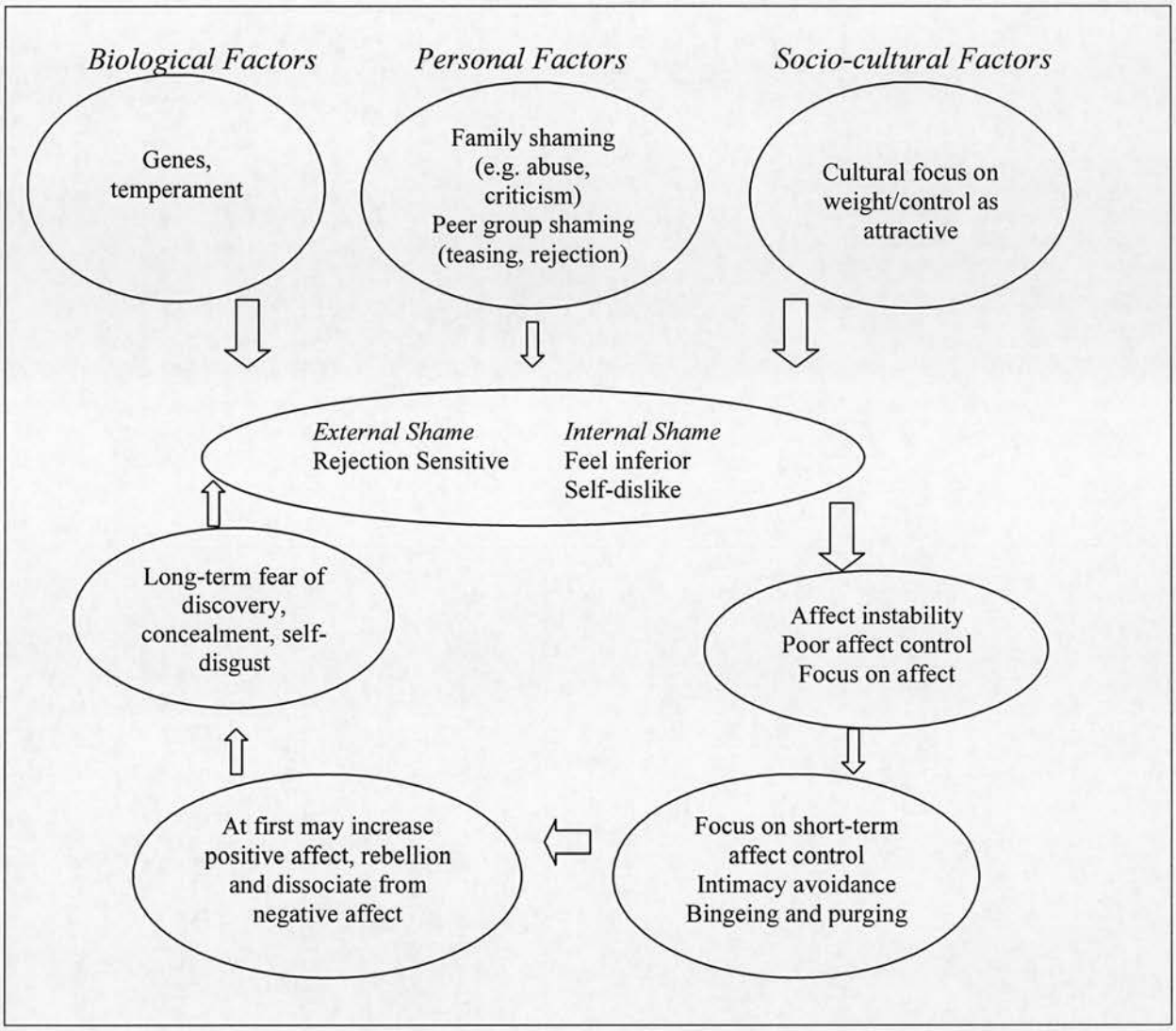


Figure 2 Shame-shame cycle in binge eating disorders (reproduced from Goss & Gilbert, 2002)

1.4 Aims of Current Research

Research into the role of shame in eating disorders is still in the early stages. It is clear that shame tends to be high in sufferers of both restrictive and bulimic eating disturbances. However, it is unclear whether the shame is a cause or a consequence of the eating disorder symptomatology, or if shame plays a role in both. As most studies explore possible causes and consequences of shame within eating disorders in isolation, complex interactions between these are ignored. Models such as those

proposed by Goss and Gilbert (2002) are useful in understanding this complex relationship. Exploring the sources of shame in people with eating disorders will compliment the existing literature linking these. As such, this research aims to identify the proportion of shame accounted for by negative early experiences, both from parents and other sources, and the proportion of shame that is felt in response to problematic eating behaviours.

1.4.1 Research Questions

It is hoped that this research can answer the following questions;

1. What factors are important in explaining shame in eating disordered populations?
2. Do these factors explain the variance in shame independently of any relationship found between shame and depression and anxiety?
3. What aspects of shame are important in eating disordered populations?
4. Is being bullied in childhood a contributory factor to shame in eating disordered populations?

1.4.2 Hypothesis

1. Both negative early experiences and current eating pathology will account for the occurrence of shame in individuals who currently meet the criteria for an eating disorder.

Chapter 2: Methodology

2 Methodology

2.1 Design

This correlational study explored the degree to which past negative experiences and current symptomatology could account for levels of shame within an eating disordered sample. Valid and reliable questionnaires were used to measure both the dependent variables and the independent variable.

Case examples, obtained from semi-structured interviews, were used to gain qualitative information to supplement the quantitative findings.

2.2 Ethical Consideration

Ethical approval for the project was sought and received from Grampian NHS Trust Research Ethics Committee before the project commenced (see Appendix 1).

2.3 Participants

Participants were recruited through two sources to maximise potential responses.

The Eating Disorders Association (EDA) is a National Charity offering support to people with eating disorders, or a history of eating disorders, and their families and carers. They have a database of people who are willing to participate in research. Contact was made with a representative from the EDA research support services, who identified 80 people on the database fitting the required criteria for the project, i.e. current diagnosis of an eating disorder and fluent in the English language.

Grampian Eating Disorders Service is a multidisciplinary team based at Fulton Clinic on the site of Aberdeen's psychiatric hospital, Royal Cornhill Hospital. The service offers outpatient assessment and a variety of treatment options to individuals referred with eating disorders. The majority of referrals come via general practitioners. Participants from this source were users of the service who had been assessed and were in treatment for their eating disorder. Service users identified as having an existing eating disorder diagnosis were asked by their lead clinician for permission to be contacted by the researcher.

All potential participants were sent a pack containing a participant information sheet (Appendix 2), a consent form (Appendix 3), a demographic information form (Appendix 4) and five questionnaires, giving them the option to partake in the study. The participant information sheet aimed to ensure that participants fully understood what their participation would involve. Participants were also given the opportunity to contact the researcher if they had any questions or required any further information. Participants were made aware that they could withdraw from the study at any point without giving a reason and that this would not affect the standard of care they received.

Subjects included in the study

- Met the criteria for an Eating Disorder according to DSM-IV

Subjects excluded from the study

- Not fluent in the English language

2.4 Questionnaires

Participants were asked to complete the following questionnaires:

- Hospital Anxiety and Depression Scale (Appendix 5; HADS: Zigmond and Snaith, 1983);
- Parental Bonding Instrument (Appendix 6; PBI: Parker, Tupling & Brown, 1979);
- Experience of Shame Scale (Appendix 7; ESS: Andrews, Qian & Valentine, 2002);
- Young Schema Questionnaire (Appendix 8; YSQ Social Isolation subscale: Young & Brown, 1990); and
- Eating Disorders Diagnostic Scale (Appendix 9; EDDS: Stice, Telch & Rizvi, 2000).

2.5 Description and Properties of Measures

i) Hospital Anxiety and Depression Scale (HADS; Zigmond &Snaith, 1983)

Research has shown links between shame and anxiety and depression (Gilbert and Andrews, 1998). It was therefore considered necessary to measure anxiety and depression in order to control for the influence of these factors on shame in the regression analysis.

To minimise the time commitment required from participants a brief screening measure was considered adequate. The HADS seemed an appropriate measure for the purpose of this study. This has the added benefit of minimising the influence of physical problems on the scores, which may be particularly relevant for some eating disorder populations.

The HADS is a 14 item self-report measure constructed to allow rapid and separate measure of anxiety and depression, which was originally developed for use in medical out-patient clinics and is now widely used within research and clinical assessment (Herrmann, 1997). The authors recommend that cut-off scores be used for its interpretation, with scores of 8-10 indicating mild cases, 11-15 indicating moderate cases and 16 and above indicating severe cases. The cut-off of 8 for "possible cases" was supported, for both general populations and somatic patient samples, in a recent review of the literature of the validity of the HADS (Bjelland, Dahl, Haug & Neckelmann, 2002).

In the same review, Cronbach's alpha coefficients of internal consistency was reported in 15 studies and varied for HADS-Anxiety from .68 to .93 (mean .83), and for HADS-Depression from .67 to .90 (mean .82) (Bjelland et al., 2002). In a comparison of three screening questionnaires for DSM-IV depressive disorders, Lowe and colleagues found the HADS to demonstrate excellent internal consistency and good criterion validity and recommended it as a measure for identifying both "major depressive disorder" and "any depressive disorder" in clinical practice (Lowe, Spitzer, Grafe, et al., 2004). In addition, Zigmond and Snaith (1983) reported a significant Spearman correlation between their diagnosis of a client's depression and

scores on the HADS (.79) and likewise for anxiety (.54). Bjelland et al.'s review (2002) looked at studies comparing the HADS to other questionnaires commonly used for measuring depression and anxiety and also concluded that the concurrent validity of the HADS is "good" to "very good". Although most of the studies in the review used the HADS with non-psychiatric hospital patients, the authors found evidence that the measure had the same properties when applied to samples from the general population, general practice and psychiatric patients (Bjelland et al. 2002).

ii) Parental Bonding Instrument (PBI; Parker et al., 1979)

Much research has been conducted exploring the role of poor attachment and parental bonding in the development of eating disorders and other forms of psychopathology e.g. Ward et al., 2000; Calam et al., 1990). There are many different measures available to assess attachment style and early family functioning, drawing from different theoretical backgrounds and adopting different terminology in describing various concepts. Thus, comparison across studies using different measures is problematic. The PBI has been classified as an attachment measure by some researchers (O'Kearney, 1996), however, others argue that it only indirectly relates to Bowlby's attachment constructs, and cannot therefore be classified as a measure of attachment (Ward et al., 2000). In an exploration of continued attachment to parents in college students, five measures were compared, including the PBI (Heiss et al., 1996). The authors concluded that all the scales appeared to assess a construct that is related to attachment, although they may be more illustrative of the general affective quality of relationships. Garbarino (1998) recommended using the PBI when assessing family relationships.

For the purposes of the current research, it was not considered necessary for the measure of perceived parental bonding to be an undisputed measure of attachment. The construct of interest was negative parenting experiences in general, not insecure attachment per se, however, these constructs will undoubtedly be very highly correlated. The PBI has been used frequently with eating disordered populations (e.g. Bulik et al., 2000; Leung et al., 2000a; Palmer et al., 1988), thus for purposes of

comparison with these studies, was considered to be the optimal measure of family relationships for this research.

The PBI (Parker et al., 1979) is a retrospective self-report 25-item questionnaire, examining perceived parental style in the first 16 years of life. The instrument is scored on 4-point Likert scales (0-3), ranging from "very like" to "very unlike". It yields two scales for each parent. The "care" scale measures warmth, empathy and emotional support, this includes 12 items such as "Spoke to me with a warm friendly voice" and "Did not praise me". The "protection" scale has 13 items reflecting intrusion, control and overprotection, for example "Did not want me to grow up" and "Tried to make me dependent on him/her". The authors suggest the instrument is useful for considering optimal parental bonding and for 'examining the influence of parental distortions on psychological and social functioning of recipients' (Parker et al., 1979; p.7). Parker et al. (1979) found negative intercorrelations between the scales of Overprotection and Care; -.47 for mothers and -.36 for fathers.

The authors initially reported low to moderate reliabilities for scores on the subscales (Parker et al., 1979) but subsequent research has found better psychometric properties. In a meta-analysis of perceived parental practices in depressed and anxious patients, the psychometric and validational properties of the PBI were found to be satisfactory (Gerlsma, et al., 1990). The short to long-term test-retest reliability of the PBI has been demonstrated for intervals ranging from 3 weeks (Parker et al., 1979) to 20 years (Wilhelm, Niven, Parker, & Hadzi-Pavlovic, 2005) in non-clinical samples. Wilhelm et al. (2005) also established that mood state and life experiences had little effect on the stability of the perception of parenting as established by the PBI. In addition, the PBI has been found to be highly stable for intervals as long as 90 months in a clinically depressed sample despite significant changes in level of depressed mood (Lizardi & Klein, 2005).

iii) Experience of Shame Scale (ESS; Andrews et al., 2002)

Despite widespread acceptance of the importance of shame in the understanding of psychopathology, until around 20 years ago empirical research had paid little

attention to shame. Tangney (1996) suggests this is due to the difficulty in measuring the affect, arising from problems of definition, direct assessment and distinguishing shame from guilt. Since then, a number of new measures have been developed which fall into three main categories:

1. Measuring sensitivity to feelings of shame in potentially shame inducing situations, or "shame-proneness";
2. Identifying individuals who experience generalised shame; and
3. Identifying individuals who are chronically ashamed of their behaviour or particular personal characteristics (Andrews, 1998).

Measures of Shame-Proneness

These measures usually assess both shame and guilt by presenting the respondent with hypothetical scenarios and asking them to indicate how they believe they would respond to each. This can be done by respondents rating how bad they would feel in a given shame- or guilt-inducing situation, as in the Dimensions of Consciousness Questionnaire (DCQ; Johnson, Danko, Huang et al., 1987). Alternatively, scenarios are presented with "common reactions" with the respondent having to indicate the likelihood of them reacting in the ways described, e.g. Test of Self-Conscious Affect (TOSCA; Tangney, et al., 1989).

Tangney (1996) views this method as conceptually sound for measuring shame and guilt separately with an additional benefit of not relying on respondents' own ability to distinguish between shame and guilt. She also believes this method to be less likely to arouse defensive response biases than measures that ask about shame or guilt directly (Tangney, 1996). Limitations of the scenario-based measures include questions about the ecological validity of the measures, i.e. whether or not responses reflect what the respondent would actually do or feel in real life situations (Andrews, 1998). Kugler and Jones (1992) suggest that measures that reference specific behaviours or situations are more likely to tap into values and standards than the affective experiences of shame and guilt. Finally, these measures assess reactions to a broad range of everyday situations but do not account for more specific and less common shame and guilt enduring scenarios.

Measures of Generalised Shame

This type of shame and guilt measure uses a checklist of shame and/or guilt related adjectives, and the respondents are asked for a global rating of how well the adjective describes them. For example, the Personal Feelings Questionnaire-2 (PFQ-2; Harder & Zalma, 1990) asks subjects how common the feelings listed (e.g. embarrassment, feeling ridiculous) are for them on a 5-point scale ranging from "never" to "continuously". Similarly, the Internal Shame Scale (ISS; Cook, 1994) has the same requirements but in response to statements, e.g. "I feel like I am never quite good enough".

These measures are easily administered and have high face validity. However, limitations include requiring advanced verbal skills to complete the measures (Tangney, 1996). Respondents are also expected to make distinctions between shame and guilt in an abstract context, which draws into question the validity of these measures given that in general many people use the terms "shame" and "guilt" interchangeably (Lewis, 1971). In addition, Andrews (1998) raises the point that these do not assess the length of time over which the feelings are experienced, leaving some question around whether the measures assess enduring characteristics or simply reflect negative affective states in the respondents at time of completion.

Measures of Shame of Personal Attributes and Behaviours

These measures ask respondents direct questions about shame experienced regarding particular aspects of the person. They do not assume generalised shame but search for specific areas the respondent may feel ashamed of. It is suggested that this makes the measure less susceptible to mood changes (Andrews, 1998). This style of questionnaire was selected for the current research.

The Experience of Shame Scale (ESS) is an example of this type of measure based on a semi-structured interview, which asks whether a person has felt ashamed of specific personal characteristics as well as their behaviour (Andrews & Hunter, 1997). The questionnaire assesses four areas of characterological shame: (1) shame of personal habits, (2) manner with others, (3) sort of person (you are), and (4)

personal ability; three areas of behavioural shame: (5) shame about doing something wrong, (6) saying something stupid, and (7) failure in competitive situations; and bodily shame: (8) feeling ashamed of (your) body or any part of it. For each of the eight shame areas covered there are three related items addressing

1. the experiential component, in the form of a direct question about feeling shame (e.g., "Have you felt ashamed of the sort of person you are?");
2. a cognitive component, in the form of a question about concern over others' opinions (e.g., "Have you worried about what other people think of the sort of person you are?"); and
3. a behavioural component, in the form of a question about concealment or avoidance (e.g., "Have you tried to conceal from others the sort of person you are?").

For bodily shame there is an extra item concerning avoidance of mirrors (in addition to concealing body parts from others). Each item is rated on a 4-point scale, ranging from 1 = "not at all" to 4 = "very much".

The total scale of the ESS has been shown to have high internal consistency (Cronbach's alpha = .92), and test-retest reliability over 11 weeks was $r(88) = .83$ (Andrews et al., 2002). Properties of the subscales were also good. In addition, an alternative version of the ESS with additional items to assess shame of one's family has shown good psychometric properties and a confirmed factor structure in a large sample of Chinese students (Qian, Andrews, Zhu & Wang, 2000).

Swan and Andrews (2003) extended the ESS to include an additional three-item scale to assess shame around eating. The decision was made to use this version of the scale for the purpose of this study, as the assessment of shame around eating is obviously very relevant to the population under investigation.

iv) Young Schema Questionnaire (YSQ; Young and Brown, 1990)

In addition to assessing negative early experiences with parents, it was believed necessary to assess whether other negative experiences in childhood contributed to

shame. It is impossible to identify and include all circumstances that could have been experienced as negative. Therefore, for the purpose of this study it was believed to be more beneficial to measure dysfunctional schemata that may arise as a result of a variety of early negative experiences. In order to do this, the YSQ was selected as a suitable schema based questionnaire. This was developed by Young as a clinical tool in relation to his schema theory. The long form of the questionnaire has 205 questions and is time consuming to complete. In order to reduce the number of questions, only schemas believed to develop later in life and reflect mainly influences from sources other than the nuclear family were administered (Young, Klosko & Weishaar, 2003). The Social Isolation schema, which gives a total of 10 questions from the YSQ, has various origins. People who score highly on this schema feel inferior or different in some way, possibly as a result of being teased, rejected or bullied by peers for some observable quality, for belonging to a family of different background, e.g., race, social status, or simply from feeling different to other children, for example, less extrovert, more intelligent and so on (Young and Klosko, 1994). This schema results in people feeling excluded due to surface qualities and are less connected to poor relationships with parents, which tend to be more pervasive and result in feelings of inferiority due to inner qualities.

Although the YSQ is a non-standardised measure, the psychometric properties of the questionnaire have been investigated within various studies. Schmidt, Joiner, Young, & Telch (1995) completed one of the most comprehensive of these. The alpha coefficients for each of the schemata measured by the YSQ were found to range from .83 to .96. In addition, test-retest coefficients in a non-clinical sample were found to range from .50 to .82 (Schmidt et al., 1995). The primary subscales demonstrated high test-retest reliability and internal consistency. Waller and his colleagues also found the YSQ to have good internal reliability and concurrent validity in a sample of bulimic women (Waller, Meyer, & Ohanian, 2001a).

For the purpose of this study, the scores for each item were summed then divided by the number of items in the subscale to compute the mean score. Thus, means range from 0-6 with higher means indicating higher dysfunction with this schema.

v) Eating Disorder Diagnostic Scale (EDDS; Stice et al., 2000)

The inclusion criterion for the study asked that individuals fit the criteria for an eating disorder. Diagnostic measures for eating disorders are available in the format of structured psychiatric interviews (e.g., the Eating-Disorder Examination [EDE; Fairburn & Cooper, 1993] and the Structured Clinical Interview for DSM [SCID; Spitzer, Williams, Gibbons & First, 1990]) and self-report questionnaires. Prior to the development of the EDDS, there was no available self-report measure to yield DSM-IV diagnoses for all three eating disorders. Also, the reliability and validity of measures from existing self-report questionnaires had not been well established (Stice et al., 2000).

It was believed that a self-report measure was most suited to this study for the following reasons:

- Some of the sample were recruited via the Eating Disorders Association national research database and were therefore not available for clinical interview;
- To reduce administration and scoring time for participants and the researcher; and
- To avoid placing participants in a situation in which they had to answer questions and discuss personal information with someone who was not clinically involved in their care;

The EDDS is a well-developed, 22-item self-report scale that provides diagnoses of anorexia nervosa, bulimia nervosa and binge-eating disorder. The scale uses a combination of Likert, yes-no, and write-in response formats. Items can be summed to form an overall eating disorder symptom composite (except items assessing height, weight, and birth control pill use) and scores range from 0 to 112 (Stice &Ragan, 2002). In the development of the EDDS, it was suggested that the symptom composite could be formed by standardising all items (to control for the effects of the different response formats) and then averaging the items (except height, weight and birth control pill items) (Stice et al., 2000). However, the authors subsequently found that the overall symptom composite often evidences satisfactory

internal consistency by summing the raw items as described above (E. Stice, personal communication, 5 April 2005)

Items on the EDDS were adapted from validated structured interviews that assess eating pathology and from DSM-IV (Stice et al., 2000). Initial psychometric investigation found the measure to be both reliable and valid. Test-retest reliability suggested strong concordance between diagnoses generated by the EDDS over time; i.e., .98 for anorexia nervosa, .91 for bulimia nervosa, .89 for binge-eating disorder and .90 for the symptom composite (Stice et al., 2000). Good to excellent concordance was found between the diagnoses from the EDDS and those from the structured interviews, suggesting adequate criterion validity. Convergent validity was also demonstrated (Stice et al., 2000).

In addition, the symptom composite evidenced acceptable internal consistency across items (mean α = .89); the authors also provide evidence of adequate convergent validity, making it a useful continuous measure of overall eating disorder symptomatology (Stice et al., 2000).

Results from a more recent study of the reliability and validity of the EDDS provide additional evidence for its criterion validity, convergent validity, and internal consistency (Stice, Fisher & Martinez, 2004). The fact that these findings replicate the evidence from the first psychometric investigation of the EDDS suggests that these estimates are relatively robust. Stice et al., (2004) also provide new evidence suggesting that the EDDS diagnoses and symptom composite are sufficiently sensitive for detecting intervention effects and show predictive validity. However, findings imply that structured psychiatric interviews are more sensitive to change in eating disorders in controlled trials.

The EDDS is therefore an ideal measure for the purposes of this study as it allows for the reliable diagnosis of eating disorders and creates a continuous measure of symptom severity necessary for the regression analysis, without placing the demand of carrying out a diagnostic interview on the participants.

vi) Demographic Information

In addition to the measures used in the study, it was also essential for analysis that personal information was collected on each participant. In addition, the researcher believed it was essential to ascertain whether participants had experienced bullying and/or teasing in their lives, as this could be one factor influencing levels of shame. To limit the workload on the participants it was decided a separate questionnaire was not necessary to assess this but that questions would be included in the demographic information sheet that was designed and administered to collect all this information (Appendix 4). It covered the following areas:

- Age;
- Sex;
- Relationship status;
- Recruitment source;
- Current contact with mental health professionals; and
- Experiences of bullying and/or teasing.

2.6 Participation in a Follow Up Interview

Participants recruited through the Grampian Eating Disorders Service were given the opportunity to participate in a short follow up interview. An extra sheet was included in their packs, which they were asked to complete and return if they chose to volunteer for this additional part of the study. Of those who responded, one participant meeting criteria for anorexia nervosa and one meeting criteria for bulimia nervosa were randomly selected. The purpose of this interview was to explore in more detail the participant's experience of shame and eating disorders. The questions in the semi-structured interview are shown in Appendix 10.

2.7 Data Analysis

i) Statistical Analysis

The Statistical Package for the Social Sciences for Windows (SPSS v 11.0) was used to perform statistical analyses on the data collected.

To test the hypothesis, correlations and partial correlations were used to explore the data in order to inform the choice of independent variables entered into the final regression model. A stepwise linear regression was then performed to explore the relative contributions of the independent variables in explaining shame.

ii) Power Calculation and Additional Requirements for Multiple Regression

The power calculation was based on multiple regression. In order to achieve a large effect size, at a two-sided 5% significance level with 80% power, 38 participants would be necessary when entering 4 independent variables (Cohen, 1992). However, a more conservative opinion suggests that the cases-to-independent variables (IV) ratio has to be substantial for the solution to be meaningful (Tabachnick & Fidell, 2001). These authors suggest that when statistical regression is to be used, a cases-to-IV ratio of 40 to 1 is reasonable.

Additional requirements for multiple regression are; the absence of outliers among the independent variables and on the dependent variable; the absence of multicollinearity and singularity within independent variables; and, normality, linearity and homoscedasticity of residuals within the dependent variables. Independent variables and the dependent variable were screened, in accordance with the recommendations of Tabachnick & Fidell (2001), and found to adequately meet these requirements.

Chapter 3: Results

3 Results

3.1 Demographic Data

Of the 112 questionnaire packs that were sent out, 53 participants responded, giving a response rate of 47%. All participants were female. One participant was excluded from all subsequent analyses, as the Eating Disorder Diagnostic Scale was not completed sufficiently to establish whether she met the criteria for an eating disorder. Thus, the final sample, used for analysis, contained 52 female participants. Nineteen (36.5%) of the participants were recruited through the Grampian Eating Disorders Service, and 33 (63.5%) were recruited through the Eating Disorders Association.

i) Age

Summary statistics of age are shown in Table 1, and the distribution of age is shown in Figure 3. As eating disorders are predominantly reported in young women, a normal distribution was not expected or observed. In fact, it might be expected that the distribution be even more skewed, and that the minimum age be lower. The fact that this is not the case may reflect the ambivalence of younger sufferers regarding their disorders and the treatment of these, and therefore being less inclined to seek help and to respond to questionnaires regarding their difficulties (Gusella, Butler, Nichols, & Bird, 2003).

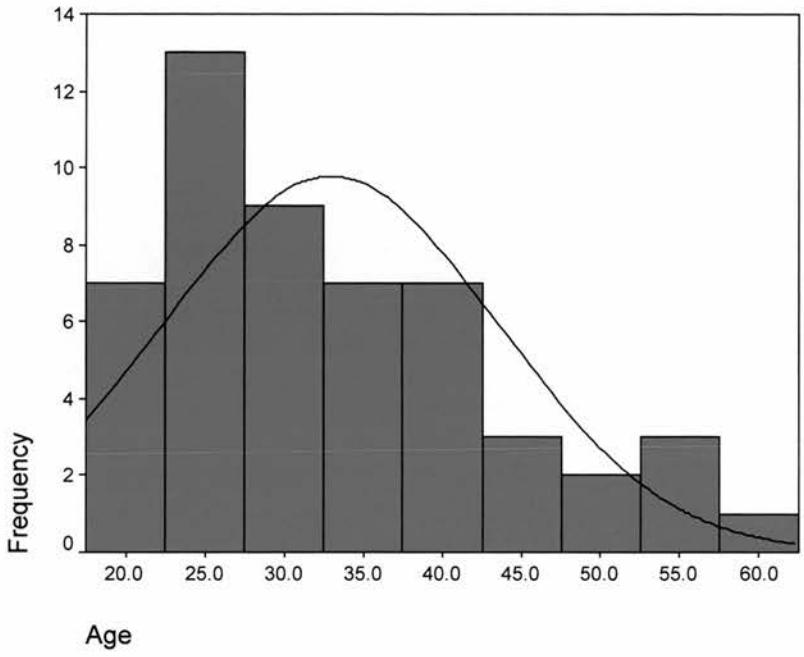
Table 1 Descriptive statistics for age of participants

N	Mean	Standard Deviation	Median	Range
52	32.94	10.59	30.5	20 – 60

ii) Relationship Status

The majority of the sample (67.3%) were single. The category of "single" does not include those in the "divorced", "separated", or "cohabit" categories. Only 28.9% of the sample were married or cohabiting.

Figure 3 Age distribution of the sample



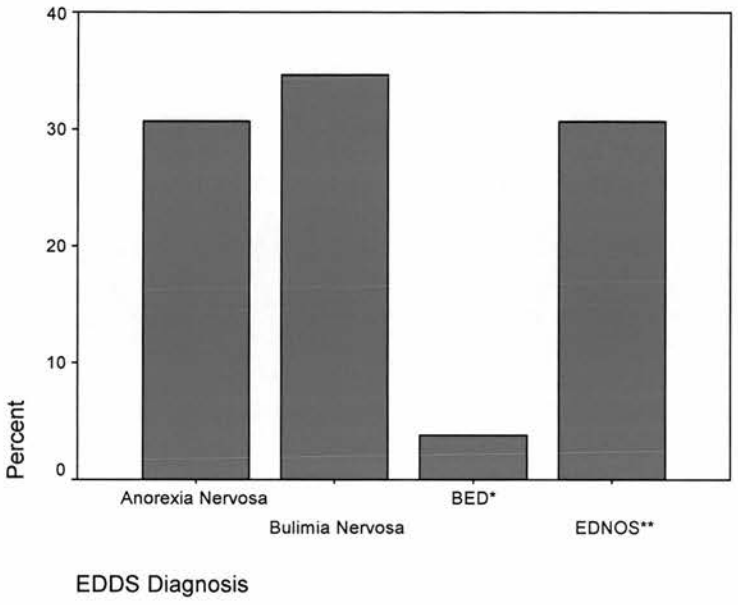
iii) Eating Disorder Diagnosis

All participants completed the Eating Disorder Diagnostic Scale (EDDS) to elicit eating disorder diagnosis. Figure 4 shows that similar numbers met the criteria for anorexia nervosa (AN), bulimia nervosa (BN), and eating disorder not otherwise specified (EDNOS). Less met the criteria for binge eating disorder (BED). The EDNOS group consisted of people who would have met the diagnosis for anorexia nervosa but had a BMI above 17.5, and those who would have met the diagnosis for bulimia nervosa but their frequency of bingeing or other means of compensating was less than required to fully meet the criteria. Anorexia nervosa and bulimia nervosa groups were not split into their bulimic and restrictive subtypes.

iv) Treatment

The majority of the sample (78.8%) were currently in treatment. The number of professionals involved in subjects' care over their lifetime ranged from 0-7 (mean 2.7). These included psychiatrists, clinical psychologists, CPNs, cognitive behavioural therapists, hypnotherapists, psychotherapists, dieticians, counsellors and social workers. Contact with professionals ranged from 2-months to 11-years 4-months (mean 3.1 years).

Figure 4 Eating disorder diagnosis (EDDS)



*

v) BMI

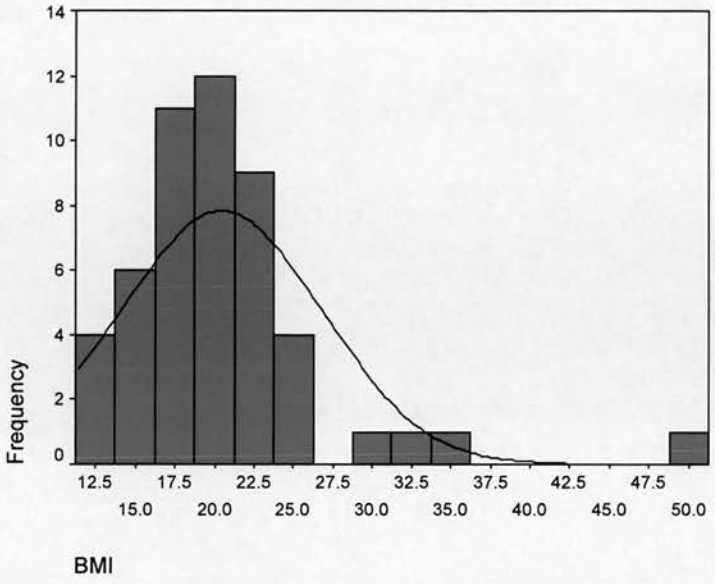
Summary statistics of BMI are presented in Table 2, and the distribution of BMI is shown in Figure 5. Most of the sample were underweight or within the healthy weight range as would be expected. Those who were overweight had the diagnoses of binge eating disorder or eating disorder not otherwise specified.

Table 2 Descriptive statistics for BMI of participants

N	Mean	Standard Deviation	Median	Range
50	20.45	6.35	19.77	11.86 - 50.45

* Binge Eating Disorder, **Eating Disorder Not Otherwise Specified

Figure 5 BMI distribution of the sample



3.2 Summary of Questionnaire Data

i) Independent Variables

Table 3 summarises the descriptive statistics for the anxiety and depression subscales of the Hospital Anxiety and Depression Scale, the Parental Bonding Instrument subscales, the Eating Disorders Diagnostic Scale symptom composite and the Young Schema Questionnaire Social Isolation scale. Exploration of frequency histograms found these all to adequately fit a normal distribution. In addition, this was confirmed statistically by obtaining the *z*-scores of skewness and kurtosis (i.e. the ratio of skewness and kurtosis to their standard errors).

ii) Dependent Variable (Experience of Shame Scale)

Table 4 summarises the descriptive statistics for all the subscales of the ESS. As each ESS shame subscale has a different number of items, the mean score for each subscale is given in the table for ease of comparability. This reflects the mean range of the 4-point scale for each item (1 = not at all to 4 = very much). Mean scores are high across all subscales and correspond to those previously quoted for eating disordered women who are currently symptomatic (Swan & Andrews, 2003). Due to a high degree of skewness for ESS total scores (z = -4.33), a logarithm (log10) of these scores was used to normalise the distribution for subsequent analyses.

Table 3 Summary statistics for questionnaire scores

	N	Mean	Standard Deviation	Median	Range
HADS Anxiety	52	15.40	3.69	16.00	6 - 21
HADS Depression	52	10.52	5.15	10.50	1 - 20
PBI Maternal Care	52	19.58	9.33	21.00	0 - 36
PBI Maternal Protection	52	16.13	8.11	15.50	1 - 33
PBI Paternal Care	52	16.63	9.81	16.00	0 - 35
PBI Paternal Protection	52	15.20	8.15	16.00	0 - 31
EDDS Symptom Composite	52	44.17	18.07	42.00	13 - 82
YSQ Social Isolation	51	4.06	1.24	4.1	1 - 6

Table 4 Summary statistics for ESS scores

Shame Type	*N*	Mean	Standard Deviation
Character	52	3.13	.74
Behaviour	52	3.16	.73
Body	52	3.39	.72
Eating	52	3.49	.86
Total	52	3.21	.68

3.3 Comparison Across Diagnoses on Questionnaires

For the purposes of this analysis, the two subjects with a diagnosis of binge-eating disorder were included within the EDNOS group. The means and standard deviations are presented in Table 5. The analysis of variance, displayed in Table 6, revealed a significant difference across groups for the EDDS Symptom Composite, $F(2,49) = 8.167$, $p < .001$. Scheffé post hoc analysis revealed that the bulimia nervosa group have significantly higher scores on this measure than both the anorexia nervosa and EDNOS groups (see Table 7). No other significant differences were observed.

Table 5 Scores on questionnaires across diagnoses

	Diagnoses					
	Anorexia Nervosa (*N*=16)		Bulimia Nervosa (*N*=18)		EDNOS (*N*=18)	
	M	SD	*M*	SD	*M*	SD
HADS Anxiety	15.12	3.03	16.56	2.96	14.50	4.66
HADS Depression	10.75	6.33	11.83	3.92	9.00	4.95
PBI Maternal Care	19.19	9.50	18.61	8.63	20.89	10.21
PBI Maternal Protectiveness	19.75	9.03	15.33	8.18	13.72	6.30
PBI Paternal Care	20.19	8.85	14.28	10.21	15.83	9.84
PBI Paternal Protectiveness	16.00	7.61	14.67	7.29	15.00	9.78
EDDS Symptom Composite	36.94	17.93	56.44	11.06	38.33	18.13
YSQ Social Isolation	4.06	1.39	4.42	1.16	3.71	1.12
ESS Total	1.34	.28	1.36	.21	1.51	.25

Table 6 Results of ANOVA comparing results on questionnaires across diagnoses

		Sum of Squares	df	Mean Square	*F*	Sig.
HADS Anxiety	Between Groups	39.825	2	19.912	1.490	.235
	Within Groups	654.694	49	13.361		
	Total	694.519	51			
HADS Depression	Between Groups	73.481	2	36.740	1.409	.254
	Within Groups	1277.500	49	26.071		
	Total	1350.981	51			
PBI Maternal Care	Between Groups	50.199	2	25.100	.280	.757
	Within groups	4392.493	49	89.643		
	Total	4442.692	51			
PBI Maternal Protectiveness	Between Groups	325.447	2	162.723	2.629	.082
	Within Groups	3032.611	49	61.890		
	Total	3358.058	51			
PBI Paternal Care	Between Groups	313.509	2	156.755	1.672	.198
	Within Groups	4594.549	49	93.766		
	Total	4908.058	51			
PBI Paternal Protectiveness	Between Groups	16.039	2	8.020	.117	.890
	Within Groups	3302.000	48	68.792		
	Total	3318.039	50			
EDDS Symptom Composite	Between Groups	4162.060	2	2081.030	8.167	.001
	Within Groups	12485.382	49	254.804		
	Total	16647.442	51			
YSQ Social Isolation	Between Groups	4.507	2	2.253	1.506	.232
	Within Groups	71.799	48	1.496		
	Total	76.306	50			
ESS Total	Between Groups	.317	2	.158	2.601	.084
	Within Groups	2.983	49	.061		
	Total	3.300	51			

Table 7 Scheffé post hoc analysis – dependent variable: EDDS Symptom Composite

(I) EDDS Diagnosis	(J) EDDS Diagnosis	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Anorexia Nervosa	Bulimia Nervosa	-19.51*	5.485	.004	-33.35	-5.66
	EDNOS	-1.40	5.485	.968	-15.24	12.45
Bulimia Nervosa	Anorexia Nervosa	19.51*	5.485	.004	5.66	33.35
	EDNOS	18.11*	5.321	.006	4.68	31.54
EDNOS	Anorexia Nervosa	1.40	5.485	.968	-12.45	15.24
	Bulimia Nervosa	-18.11*	5.321	.006	-31.54	-4.68
* The mean difference is significant at the .05 level						

3.4 Influence of Bullying

To explore the impact of bullying the sample was divided into those who had experienced bullying and/or teasing (N = 41) and those who had not (N = 11). A non-parametric test was selected to identify significant differences between these groups on the questionnaire measures as the underlying assumptions of parametric tests, especially normality, were not met. Due to the small sample size of one of the groups and the unequal group sizes, the violation of the normality assumption was considered significant enough to select a non-parametric test.

The scores on all main questionnaire measures (HADS, PBI, EDDS–symptom composite, YSQ Social Isolation and ESS total score) were each rank ordered separately and a Mann-Whitney U-test was used to compare the ranks for the two groups on all the measures (Appendix 11). The results indicate a significant difference between the groups only on the YSQ Social Isolation measure, U = 130.5, two-tailed $p < .05$. A significant difference would be expected on this measure as the Social Isolation schema is hypothesised to develop as a result of teasing, rejection or bullying from peers, among other experiences (Young et al., 2003).

3.5 Correlations Between Variables

Appendix 12 shows the Pearson correlation matrix for all the self-report measures. The transformed total shame variable was found to be significantly negatively correlated with anxiety (r = -.491), depression (r = -.556), severity of eating disorder symptoms (r = -.434), and the Social Isolation schema (r = -.655), all

two-tailed *p*s < .01. Due to the transformation of this variable, this indicates that greater levels of recent shame are associated with higher scores across these variables.

Eating disorder severity was significantly correlated with anxiety (r = .351, two-tailed p < .05), depression (r = .569, two-tailed p < .01), paternal care (r = -.288, two-tailed p < .05), and Social Isolation schema (r = .353, two-tailed p < .05). Thus, the greater the eating pathology, the higher the depression, anxiety and beliefs about being different to others, and the lower the perception of paternal care. Low maternal care was associated with higher levels of depression (r = -.339, two-tailed p < .05), higher maternal protectiveness (r = -.356, two-tailed p < .01), and higher scores on the YSQ Social Isolation schema (r = -.462, two-tailed p < .01). Significant correlations were also found between anxiety and depression (r = .569, two-tailed p < .01), depression and Social Isolation schema (r = .642, two-tailed p < .01), and maternal and paternal protectiveness (r = .442, two-tailed p < .01).

3.6 Hypothesis Driven Statistical Analysis

Both negative early experiences and current eating pathology will account for the occurrence of shame in individuals who currently meet the criteria for an eating disorder.

i) Choice of Independent Variables

> Regression will be best when each IV (Independent Variable) is strongly correlated with the DV (Dependent Variable) but uncorrelated with other IVs. A general goal of regression, then, is to identify the fewest IVs necessary to predict a DV where each IV predicts a substantial and independent segment of the variability in the DV. (Tabachnick & Fidell, 2001; p. 116).

Exploration of the correlation matrix (Appendix 13) revealed a significant correlation between HADS anxiety and HADS depression (r = +.57, n = 52, two-tailed p < .01). Thus, the decision was made to include only HADS depression in the regression analyses, as it had the higher correlation with the dependent variable (ESS total score; r = -.56).

The PBI scores did not produce significant correlations with the dependent variable. However, a complex relationship was observed between PBI maternal care and ESS total score. Both HADS depression and YSQ Social Isolation are negatively correlated with ESS total score and PBI maternal care. Via these negative correlations, it would be expected that PBI maternal care would be positively correlated with ESS total score, however, the relationship is actually close to zero (r = .099). This suggests that there are two factors involving PBI maternal care; a negative effect on ESS total score directly, and a positive effect indirectly by reducing YSQ Social Isolation and HADS depression. Thus, these effects were hypothesised to be cancelling each other out. This was tested using a partial correlation whereby the relationship between ESS total score and PBI maternal care was explored while HADS depression and YSQ Social Isolation were held constant.

Results of the partial correlation were found to be significant and negative (r = -.34, two-tailed $p < .05$), thus supporting the proposed effect of PBI maternal care. Maternal care was therefore deemed appropriate to be entered into the regression analyses.

The EDDS symptom composite was significantly correlated with ESS total score (r = -.43, two-tailed $p < .01$). However, it was also correlated with two of the independent variables, YSQ Social Isolation (r = .353, two-tailed $p < .05$) and HADS depression (r = .387, two-tailed $p < .01$). Despite these correlations with other independent variables, the decision was made to include EDDS symptom composite in the regression analyses, as it was believed necessary for testing the hypothesis.

ii) Multiple Regression Analyses

A stepwise linear regression was undertaken to explore the relative contributions of the independent variables (HADS depression, PBI maternal care, YSQ Social Isolation and EDDS symptom composite) in explaining shame (ESS total score), in an eating disordered population. Full results are displayed in Table 8.

Analyses indicate that the best predictors of shame were strength of Social Isolation schema, low maternal care, and severity of eating disorder symptomatology, F (3, 47) = 17.87, $p < .05$. These variables explained 50% of the variance (Adjusted R^2 = .503), the majority of which comes from YSQ Social Isolation (Adjusted R^2 = .418; 42%).

Table 8 Stepwise Regression Model and Statistics for Dependent Variable (ESS Total Score)

Model	Unstandardised Coefficients		Standardised Coefficients	T	Sig.	R^2	Adj. R^2	F
	B	Std. Error	Beta					
1								
(Constant)	1.949	.095		20.616	.000			
YSQ-SI	-.136	.022	-.655	-6.073	.000	.429	.418	36.877
2								
(Constant)	2.195	.140		15.661	.000			
YSQ-SI	-.161	.024	-.779	-6.682	.000			
PBI mC	-7.31E-03	.003	-.269	-2.304	.026	.486	.465	22.715
3								
(Constant)	2.257	.138		16.349	.000			
YSQ-SI	-.143	.025	-.692	-5.787	.000			
PBI mC	-6.94E-03	.003	-.255	-2.265	.028			
EDDS (Symp. Comp)	-3.25E-03	.001	-.231	-2.165	.035	.533	.503	17.870

3.7 Case Examples
i) Case Example 1

Current Difficulties

Sarah[1] is a 28-year old female with a diagnosis of multi-impulsive bulimia nervosa, for which she has been in therapy for approximately two years. Her scores on the questionnaires were as follows;

Measure	Sarah Score	Measure Range	Sample Mean	Measure	Sarah Score	Measure Range	Sample Mean
HADS Depression	14	0-7 none 8-10 mild 11-15 moderate 16-21 severe	10.52	**EDDS Symptom Composite**	66	0-113	44.17
HADS Anxiety	12	0-7 none 8-10 mild 11-15 moderate 16-21 severe	15.40	**YSQ Social Isolation**	4.7	0-6	4.06
PBI Mother Care	13	0-36	19.58	**ESS Character**	41	12-48	37.54
PBI Mother Protection	7	0-39	16.13	**ESS Behaviour**	29	9-36	28.40
PBI Father Care	8	0-36	16.63	**ESS Body**	13	4-16	13.56
PBI Father Protection	13	0-39	15.20	**ESS Eating**	12	3-12	10.46
BMI	21.40		20.45	**ESS Total**	95	28-112	89.96

From the questionnaires, it is clear that Sarah suffers from moderate anxiety and depression and very high levels of shame and eating pathology. Her memory of her relationships with both parents suggest she grew up in an environment where warmth and affection were lacking and are suggestive of possible neglect. She also has an active Social Isolation schema, suggesting that she views herself as different from other people and may not have developed a sense of belonging.

Sarah's current difficulties arose at the age of 18, following a spell of very rigid dieting. She describes excessive bingeing and purging, but also excessive alcohol consumption, compulsive shopping, and very low self-esteem.

In social situations, Sarah now presents with a confident veneer, but finds it difficult to sustain relationships as "once people get to know me they will see that I am different". She particularly struggles with people she perceives to be above her in terms of status, "people who are cooler than me", with whom she becomes quiet, which she believes will confirm to them that she is "weird". Sarah continues to experience shame around her interpersonal difficulties and her low self-esteem

Past Experiences

Sarah recalls feelings of shame around her weight from as early as 3-years of age, although she can now look back retrospectively and see she has always been within a healthy weight range, "but not stick thin". Sarah describes a spell of bulimic behaviours when she was 12-years old, explicitly taught to her by her mother as an appropriate method of weight control, who also has a history of eating disorders, social phobia and agoraphobia. Sarah views this period of bulimia as an attempt to eat what she wanted and not gain weight, which came to an end when she realised that it was bad for her and not "normal" behaviour.

From an early age, Sarah felt different from other children as both her parents had mental health problems and there were lots of secrets within the family, which they were all ashamed of. As a result, Sarah was a very shy child, recalling early feelings of shame around not having many friends.

Due to her shyness and "weird family", Sarah was bullied throughout her primary school years, some of the taunting being in relation to her weight. This brought more feelings of shame, as Sarah believed her parents also thought she was fat and worried about them being ashamed of her. Sarah felt alienated, having noone to play with at lunch and playtimes and never being chosen as a partner in any school activities. In addition to the weight related teasing, the other children made her feel dirty, disgusting and diseased.

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[1] Names of case examples have been changed to ensure anonymity and no identifying information is included in the report.

Perception of Difficulties

Sarah connects her family environment to her experiences of bullying and these consequently to her beliefs that "if I am thin then I will be beautiful and loved", and hence to her current eating disorder. She describes still seeing herself as that child that everyone made fun of and accepts the connection between these early events and her current beliefs around being "deficient and ugly".

Sarah views the purpose of the bingeing as "filling an emotional void", describing intense feelings prior to bingeing, "climbing the walls" and unable to concentrate on anything other than what she will eat. Specific triggers for a binge are identified as feeling lonely and insecure, having a bad day, feeling empty and depressed, receiving a negative comment and comparing herself unfavourably to others. Sarah recognises that the bingeing serves the function of avoidance as she has observed that when she is unable to afford food on which to binge she is "plagued by dark thoughts" and feels "messed up and full of self-hatred". Consequences of her difficulties are identified as wasting money, food and time, physical illness, depressed mood, feelings of being "out of control", isolation and withdrawal from her support network. Sarah describes a cycle whereby she experiences negative emotions, precipitating a binge (which distracts her temporarily from the intense emotions), this results in high levels of shame and disgust with herself and fear of weight gain, precipitating vomiting, which results in even higher levels of shame and disgust, sometimes resulting in further bingeing.

The Role of Shame

Prior to a binge, Sarah describes moderate levels of shame but also some excitement. While "binge shopping" her shame centres around the contents of her basket ("lots of high fat, unhealthy foods") and being found out, "people will know". During a binge, Sarah is completely distracted from all thoughts and feelings. At times, she forces herself to stop and think and notices that everything seems OK and she feels happy. However, when the binge is over high levels of shame and other negative emotions remerge, leaving Sarah feeling "disgusting, fat, repulsive, out of control, and ugly". Following the inevitable period of vomiting, these affects are often even

more pronounced. However, on occasion this may lead to feelings of calmness and a sense of Sarah being "at peace" with herself. At times when Sarah has been successful at restricting her diet she describes intense feelings of pride, enjoying experiences such as hearing her "tummy rumble".

Sarah describes the feeling of shame as "self loathing, worthlessness, uselessness, terror that people might find out". She feels ashamed about her bulimia nervosa because it makes others worry about her, but also feels ashamed at her lack of control. In addition, Sarah experiences shame about her shame as she believes that other people have come through worse experiences than her and are not as "messed up".

Sarah describes experiencing high levels of characterological and bodily shame, viewing the basis of these as her negative early experiences with her parents and peers. It seems her eating disorder serves the function of alleviating some of this distress temporarily. However, the adoption of these behaviours as a means of coping with these intense emotions has the long term effect of evoking behavioural shame and shame in relation to her eating and making her feel even more different. All these aspects of shame result in further difficulties, such as social withdrawal, which exacerbate her difficulties and lead to further shame; about loss of control, shame around her shame, and about her interpersonal difficulties.

ii) Case Example 2

Current Difficulties

Mary[2] is a 24-year old female with a diagnosis of anorexia nervosa, for which she has been in therapy for two years. Her scores on the questionnaires were as follows;

Measure	Mary Score	Measure Range	Sample Mean	Measure	Mary Score	Measure Range	Sample Mean
HADS Depression	10	0-7 none 8-10 mild 11-15 moderate 16-21 severe	10.52	**EDDS Symptom Composite**	38	0-113	44.17
HADS Anxiety	4	0-7 none 8-10 mild 11-15 moderate 16-21 severe	15.40	**YSQ Social Isolation**	2.6	0-6	4.06
PBI Mother Care	28	0-36	19.58	**ESS Character**	31	12-48	37.54
PBI Mother Protection	5	0-39	16.13	**ESS Behaviour**	29	9-36	28.40
PBI Father Care	15	0-36	16.63	**ESS Body**	15	4-16	13.56
PBI Father Protection	8	0-39	15.20	**ESS Eating**	11	3-12	10.46
BMI	16.29		20.45	**ESS Total**	86	28-112	89.96

Results from these measures suggest Mary has a mild depressive disorder and fairly high levels of shame, particularly in relation to her body and eating habits. Scores on the PBI are suggestive of a family environment whereby mother was more present and attentive to her needs, but where boundaries were perhaps not set.

Mary currently has a very restricted diet and excessively exercises. Her current problems arose around four years ago, following an attempt to lose a little weight.

Past Experiences

Over the course of the interview, Mary made no links between her eating disorder and any past experiences. The interview does not ask direct questions about this but opens up discussion conducive to obtaining this information. Mary was avoidant of

[2] Names of case examples have been changed to ensure anonymity and no identifying information is included in the report.

all attempts to explore her past and denied any experiences that may have precipitated her difficulties.

Perception of Difficulties

Mary describes getting "stuck in a cycle of eating healthily" and checking labels for calories and fat content. No specific triggers are identified other than the dieting, however, Mary recognises that she has always had a controlling side to her and that this has been exacerbated since losing weight. Restricting food intake helps Mary to feel more in control, although she denies feeling out of control in any area of life other than eating. She also describes the restricting as a "safety or security thing", as she identifies that she becomes very anxious if she is in danger of losing control over what she is eating.

Adhering to her own dietary rules results in Mary feeling "normal, happy and safe". She would not describe this as a sense of pride. On the rare occasion Mary breaks a dietary rule she describes feeling "uncomfortable, anxious and guilty", resulting in her overcompensating by eating less or doing more exercise to help her cope with these feelings. Feelings of guilt are also experienced when Mary does not manage to fulfil her daily exercise commitments. She describes no feelings of shame around these transgressions.

Mary is ambivalent about her difficulties. On the one hand, she does not view being underweight as a big issue, but on the other hand, in some ways she feels it would be nice to not have the burden of being so constrained in her eating and recognises that she often feels exhausted as a result of her restricting and exercising. Mary also acknowledges that she feels self-conscious about her weight at times, making specific mention to the thinness of her arms. However, she describes herself as being "generally happy about it" and that the feelings of guilt are so intolerable when she tries to change anything that it is "not worth it".

The Role of Shame

Describing the feeling of shame is difficult for Mary. She views this as a sense of "disappointment with the self, not as strong as disgust but not liking what you are doing or disliking aspects of the self". Mary denies ever feeling ashamed, certainly not in relation to her eating disorder. She clearly states that it is guilt she experiences in response to lapses of control. Mary describes the difference between shame and guilt as guilt being more about letting yourself down "you have broken a rule that shouldn't have been broken", whereas shame is more about not liking yourself.

Chapter 4: Discussion

4 Discussion of Results

4.1 Hypothesis

The hypothesis stated that;

Both negative early experiences and current eating pathology will account for the occurrence of shame in individuals who currently meet the criteria for an eating disorder.

4.1.1 Quantitative Findings

As the regression analysis identified maternal care, Social Isolation schema and eating disorders symptomatology as the factors important in explaining levels of shame, the results of the study support this hypothesis; therefore, the null hypothesis can be rejected.

The results reveal that these factors together can explain around half the variance across the shame measure, with the Social Isolation schema independently contributing the majority of this. Although entered into the regression equation, depression was not found to make a significant independent contribution to the variance in shame. It can therefore be concluded that both negative early experiences and current eating pathology partly account for the occurrence of shame in individuals with eating disorders, independent of the individuals' level of depression. This finding also answers Research Questions 1 (What factors are important in explaining shame in eating disordered populations?) and 2 (Do these factors explain the variance in shame independently of any relationship found between shame, depression and anxiety?).

In considering these results in conjunction with existing literature they seem to suggest that, within eating disorders, shame arises as a result of negative early experiences but is exacerbated and maintained through secondary shame in relation to the eating behaviours.

Through negative interactions with mothers and peers, it can be hypothesised that individuals internalise negative perceptions of themselves and develop beliefs about

themselves being in some way defective, inadequate or flawed. In an attempt to make sense of these negative experiences, children are likely to attribute their maltreatment to characteristics inherent in themselves (Young et al., 2003). Through experiences of feeling rejected or unworthy of love from ones mother and being devalued or alienated by ones peers, a person develops a sense of themself as someone shameful and undeserving of warmth and attention. It is likely that due to low maternal care these individuals have developed insecure attachments and resulting difficulties in regulating and managing affect. Thus, in order to deal with these negative perceptions of themselves and sense of shame and badness, these individuals develop eating disorders as a maladaptive means of coping with this, and other, intense emotions. It is possible that they initially adopt these behaviours in an attempt to change one aspect of themselves to gain the acceptance of their peers and to raise their perceived status or rank. By doing so, it is likely that the eating disorder behaviours reduce shame in the short term, either by distracting from the negative emotions, or through providing a sense of pride through the loss of weight and achieving a more "acceptable" body shape, all of which is highly reinforcing and serves to maintain the difficulties. However, these disorders have the longer term effect of triggering secondary shame in relation to the behaviours themselves and cause other problems, such as social withdrawal, that perpetuate the difficulties. The shame in bulimic disorders arises from the individuals' disgust at their own bingeing and purging behaviours and the reinforcement of the view that they are "different". In anorexia nervosa, the shame is in relation to any violation of their strict dietary rules, or around their physical need for food, both of which are viewed as weaknesses.

As causation can not be assumed this is all speculative. Alternative explanations can be posited, such as shame developing from an unexplored factor, resulting in behaviours that affect relationships with mothers and peers. However, the proposed model incorporates evidence from both eating disorders and shame research and makes sense of the current findings in conjunction with this, and thus warrants further investigation.

It is interesting, given the vast literature on the role of parental interactions in the development of eating disorders and, to a lesser extent, shame, that it is infact the negative actions of peers that appears to be potentially more damaging for this sample. Until now, the focus of research exploring the role of negative peer experiences on the development of eating disorders has been around the impact of weight related teasing on body image (e.g. Thompson et al., 1995; 1999). The current research suggests that teasing/bullying may have a more important role in the development of eating disorders through the formation of dysfunctional schemata, specifically Social Isolation, and shame. These results also suggest a direct link between negative peer interactions and shame, an area that has not yet been explored.

4.1.2 Case Examples

The case studies of Sarah and Mary provide interesting insights into the population that has been investigated, and further our understanding of the discussion so far. Obviously, one has to be cautious when making generalisations on the basis of these case studies, and no inferences can be made about the importance of other emotional and psychological factors experienced by these individuals that were not directly explored during the course of their interviews. Despite these considerations, the case examples provide a rich source of information about the participants' personal experiences of eating disorders and shame.

i) Case Example 1

Sarah appeared very self aware and insightful about her difficulties. She clearly demonstrated the role of all the identified factors in the development of her own shame, and the function this served in her consequent eating disorder.

Maternal Care

Sarah's scores on the Parental Bonding Instrument were all relatively low indicating that her perceived relationship with both her parents were poor. Based on this measure, it seems that both her mother and father found it difficult to demonstrate love and warmth to her, while the low protectiveness scores, in conjunction with this suggests a degree of neglect. Sarah confirmed this over the course of the interview.

Both Sarah's parents suffered from mental health problems, a factor that is implicated in poor family functioning and problematic attachment, and hence, future mental health problems in offspring (e.g. Parker et al., 1979; Schmidt et al., 1997b). The family dynamics described by Sarah are reminiscent of those identified by Kaufman (1989) as factors predisposing to eating disorders. He highlighted the role of weight and food related issues within the family in the development of both eating disorders and shame. Specifically, her mother introduced Sarah to sociocultural ideals of body shape and weight at a very young age. Her mother suffered from eating disorders for as long as Sarah could remember, thus unhealthy beliefs around food, eating and body shape were made explicit to her as she was growing up. Sarah was aware that her parents perceived her to be overweight, and describes feeling ashamed of this as a young child. Clearly there are links between Sarah's relationship with her mother and the development of early shame.

Social Isolation Schema

The mental health of Sarah's parents was an early source of shame as there was a great deal of secrecy surrounding this. Secrets imply that something is to be ashamed of and therefore hidden from others, leading Sarah to feel that there was something inherently different about herself and her family. Sarah believes this had a significant influence on her self-esteem as a child, resulting in her being very shy and vulnerable to bullying. Sarah's experiences of bullying occurred predominantly through her primary school years. She recalled some teasing regarding her weight and appearance but also references to her being dirty and disgusting. She recalled always being the last in the class to be chosen as a partner for group activities and spending her lunch and break times alone. As such, Sarah's experiences of school were of being lonely, alienated and rejected. The beliefs she developed as a consequence of these experiences were around being unlovable, different and inadequate. Unsurprisingly, Sarah scored highly on the YSQ Social Isolation schema. According to Gilbert (1992), our sense of rank and status is influenced by how others value us, and messages from others about our attractiveness to them. Thus, the feedback from her peers led Sarah to feel very subordinate and defective.

This history illustrates the establishment of the Social Isolation schema and its subsequent role in the development of shame.

Sarah identified triggers for bingeing as feeling lonely, receiving negative comments and comparing herself unfavourably to others. In adulthood, schemata are triggered by life events perceived as similar to traumatic experiences in childhood. When these are triggered, the individual experiences strong negative emotions, such as grief, shame and rage (Young et al., 2003). This directly highlights the role of Sarah's early experiences in her current dysfunctional behaviours.

Eating Disorder Behaviours

As well as shame identified as arising from negative early experiences, Sarah describes several sources of shame as arising from her current difficulties. Firstly, Sarah is aware of intense shame following episodes of bingeing and purging but also in response to the preparation for these behaviours, for example, buying "binge food" makes her fearful of being "found out". She also describes shame at her perceived lack of control, and shame about feeling ashamed, as she believes these signify personal weaknesses. These sources of shame are observed and described by Skarderud (2003) as Western phenomena related to cultural ideals of the importance of being in control and the discouragement of demonstrating vulnerabilities. Finally, Sarah describes shame around her low self-esteem and subsequent interpersonal difficulties. She specifically identifies the fact that she has few friends as being a source of shame as to Sarah this indicates that there is something different and defective about her. Sarah has observed that she struggles to communicate with people when she is in the company of individuals she perceives as being of a higher status to her. This provides some support for Gilbert's (1989; 1992) biosocial theory of shame, which would explain this in terms of Sarah adopting subordinate behaviours in an attempt to minimise rejection from this group, which she is afraid may occur if they get to know her and become aware of her perceived flaws. However, it seems that this behaviour has the effect of making Sarah feel even more different and inadequate, and thus more ashamed. This suggests the role of shame in the maintenance of bulimia nervosa. Individuals are ashamed of their eating habits

and therefore binge and purge in secret. As a result, they are likely to become socially isolated and view themselves as " inherently different" to other people. This prevents them from gaining support for their difficulties and contributes to their low self-esteem (Weiss et al., 1994). This description of shame in relation to eating disorder pathology suggests that the relationship is more complex than is described in the literature. Most research has focused on the shame around the bingeing and purging behaviours. Although this does appear to be significant, other aspects of the disorder contribute to this shame, e.g. low self-esteem, social withdrawal and the perception of being a burden to others.

Other Issues

Sarah considers herself to have interpersonal problems and views this as a major aspect of her current difficulties. Given the evidence for a tendency towards insecure attachments within eating disordered populations (Ward et al., 2000) and the fact that this has been found to greatly compromise the quality of future adult relationships, it is not surprising that these individuals struggle interpersonally. In the current sample, for example, the majority of the respondents were single (not including divorced or separated). Tangney and colleagues (1992a; 1992b) also identified high levels of shame to be associated with impaired empathic abilities and frequent bouts of anger and hostility. A study by Gilbert, Allan, and Goss (1996) demonstrated that high shame individuals tended to be overtly cold. They concluded that shame tends to lead to a defensive and avoidant style of relating in order to protect a fragile sense of self. Consequently, these individuals fail to elicit valuing signals from others, maintaining an inferior sense of self. It is therefore likely that many individuals with eating disorder experience interpersonal difficulties and subsequent shame around this. This aspect of shame is not directly measures by the ESS, although some items of the character and behaviour sub-scales are relevant to this, thus firmer conclusions in relation to this can not be made based on the current sample. Shame around interpersonal difficulties is an area that merits further investigation.

Sarah also provides a clear example of the shame-shame cycle of binge eating disorders proposed by Goss & Gilbert (2002). Risk factors for shame include the

adoption of cultural focus on weight control as attractive, and family and peer shaming, all of which are clearly present in Sarah's past. Her description of her difficulties is congruent with the idea of bingeing being used as a means of managing or regulating intense negative emotions, describing this as "filling an emotional void". When unable to employ this strategy (e.g. when unable to afford food), Sarah has gained insight into the "dark thoughts" and self-hatred she is avoiding. The complete distraction from these negative emotions, and temporary sense of peace, Sarah achieves through bingeing is highly reinforcing. In addition, Sarah describes the pride she experiences when she believes she has adequately restricted her food intake.

ii) Case Example 2

Mary did not support the findings of this study, describing good relationships with family and peers throughout her life, and denying shame around her current difficulties.

Mary presented as a fairly typical anoretic in the precontemplative stage of her difficulties. She was very ambivalent about her difficulties, at times denying that her low weight and restrictive eating were problematic for her at all, but also identifying some physical difficulties as a consequence of this restriction. Given this, it would have been difficult for Mary to admit to shame around her eating disorder as to do this would involve admitting she has a problem. At the moment, anorexia nervosa is providing Mary with a useful coping strategy and the perceived benefits outweigh the costs. Often, for people in this position, their sense of identity is so fragile that they are unable to identify shame surrounding their condition. For Mary, the eating disorder represents the use of automatic coping strategies, outwith her awareness, to deal with this fragile identity (Goss & Gilbert, 2002). Her denial of any experience of shame within the interview is contrary to her results on the questionnaire measures. Levels of reported behavioural and bodily shame and shame around eating were in line with the sample average, indicating significant levels of shame around these aspect of herself. Some of Mary's comments were also suggestive of

shame, for example, feeling self-conscious about the thinness of her arms, and describing a need for control over her eating for her not to feel bad.

Mary was able to identify some feelings of guilt in relation to her difficulties, suggesting that to make any changes to her strict rules and routine around eating and exercising, would involve intolerable amounts of guilt. The reason Mary is so successful in her restriction is due to a fear of the guilt she would experience if she failed to adhere to the dietary and exercise rules she has imposed upon herself. Anorexia nervosa is therefore viewed by Mary as her protector from intense negative emotions.

Contrary to the Goss and Gilbert (2002) shame-pride model of anorexia nervosa, Mary identified no pride in relation to her low weight and ability to adhere to strict dietary rules.

Mary's case example highlights the similarities between shame and guilt, and the difficulties defining and distinguishing these. This suggests that a measure of guilt should have been used to control for this in analyses. The Experience of Shame Scale directly asks people to rate levels of shame in relation to certain aspects of themselves. Thus, the measure implicitly supposes that the respondent can distinguish between shame and other similar emotions, such as guilt, embarrassment and humiliation. Many studies have shown alexithymia to be a characteristic commonly found in patients with eating disorders, particularly anorexia nervosa (e.g., Cochrane, Brewerton, Wilson, & Hodges, 1993; Schmidt, Jiwany, & Treasure, 1993). This essentially means that many eating disordered women will have difficulty identifying and communicating feelings or discriminating between emotional states and bodily sensations. It seems that it can not be assumed that people were rating shame as opposed to other self-conscious emotions.

4.2 Other Findings

i) Anxiety, Depression, Eating Disorders and Shame

Anxiety scores across this sample were very high, almost all participants scoring within the clinically significant range and the mean score for the sample falling just below the cut-off for severe anxiety. Scores for depression were lower, but the mean across the sample was also high, within the clinically significant moderate range. Levels of anxiety and depression were positively correlated, as were these measures with eating disorder symptomatology. These results are consistent with existing comorbidity research (e.g. Fairburn & Harrison, 2003).

The scores of this sample were high on all subscales of the shame measure, producing comparable mean scores to those of the currently eating disordered sample described by Swan and Andrews (2003). The Swan and Andrews's study compared shame scores between an eating disordered sample and healthy controls on the ESS, and found the eating disordered sample to score significantly higher on all subscales. Therefore, it appears that the individuals in this sample report shame in association with their body and shame around eating, but are also ashamed of aspects of the self not directly linked with their eating disorder. This finding provides support for the hypothesis and answers Research Question 3 (What aspects of shame are important in eating disordered populations?). In addition, high levels of total shame were associated with greater eating disordered behaviours, a result that is not consistently found across the literature.

In line with current knowledge of the comorbidity between shame and negative affect (e.g., Allan et al., 1994), correlations between anxiety, depression and shame were found to be significant. However, the results of the current study suggest that the relationship between these factors may not be straightforward. The observed associations might be better understood as resulting from similar factors being implicated in the development and maintenance of all three negative affects.

ii) Comparison Across Diagnoses

No significant differences were observed between diagnoses on any measure other than on the Eating Disorder Diagnostic Scale. This suggests that exploring this heterogeneous eating disorder group was adequate and appropriate for the purpose of this study. It is possible that different results would have been found had the group been divided in terms of behaviours as opposed to diagnoses, for example bulimic versus restrictive behaviours. It would be interesting to compare these groups on levels of shame, as the behaviours may provide a more useful distinction than diagnosis in understanding the experience of this affect across an eating disordered sample. Research hypotheses based on this division of the sample will form the basis of future analyses on the current data set.

iii) Family Factors

Similar levels of parental care and protectiveness were observed in this study as have been shown in other research using eating disordered samples (Bulik et al., 2000; Calam et al., 1990; Leung et al., 2000a). However, contrary to previous research, this study found no correlations between any of the PBI subscales and levels of shame (Lutwak & Ferrari, 1997). The analyses testing the hypothesis explains the apparent absence of a link between shame and maternal care as being a result of the direct relationship between maternal care and shame being cancelled out by links with maternal care and other factors influencing shame. High maternal care was found to reduce depression and the Social Isolation schema, which were both observed to be associated with higher levels of shame. Thus, maternal care seems to directly influence shame, while simultaneously protecting against shame through its effect on other factors. Consequently, maternal care was found to be an important factor influencing shame in the final regression model.

It does seem that paternal care and parental protectiveness are not significantly associated with shame in the current sample. This is in contrast to findings from a study by Lutwak and Ferrari (1997), which used a non-clinical sample to explore the role of perceived parental bonding on the development of subsequent shame. They found that shame was associated with memories of ones mother as neglectful,

controlling and affectionless, and ones father also as someone who did not express affection and warmth. Differences between these findings might be a result of the different samples used. It is possible that the current sample felt less able to express negative views about their parents than a non-clinical sample.

Despite the interest in the literature about parental influences on the development of shame, little empirical evidence is available to support this in eating disordered populations. As such, it can only be concluded from this study that, for eating disordered individuals, the development of shame is influenced by levels of maternal care but does not seem to be affected by the protectiveness of the mother or the quality of relationship with their fathers.

iv) Bullying

Almost 80% of the current sample admitted to have experienced bullying or teasing, generally through primary and secondary school. This in itself suggests that these could be important factors in the development of eating disorders, or at least some form of ongoing psychological difficulty. Interestingly, when comparing the participants who had, with those who had not experienced bullying or teasing on the current questionnaire measures, these groups were only significantly different on level of Social Isolation schema. This provides support for this schema forming as a result of being teased, rejected, or humiliated by other children or feeling inferior to other children, because of some observable quality (appearance, weight, accent) (Young & Klosko, 1994). However, caution is needed in interpreting these results due to the small sample size in the group that had not experienced bullying or teasing ($N = 11$). By means of answering Research Question 4 (Is being bullied in childhood a contributory factor to shame in eating disordered populations?), in conjunction with the results of the hypothesis, it seems the experiences of bullying and teasing could be important in understanding the development of both shame and eating disorders. Thus, this is an important area of research, which has been largely overlooked.

The scores on the YSQ Social Isolation schema of the current sample were higher than that of a bulimic sample studied by Waller et al. (2001a). They obtained a mean

of 3.43 for this schema and found this to be significantly higher to that of their control sample, also concluding that this schema is important in eating disorders.

4.3 Therapeutic Implications

It seems that high levels of dysfunction with the Social Isolation schema can be indicative of high levels of shame, and should therefore be assessed in therapy, especially where related difficulties, such as social anxiety, are apparent. In addressing the Social Isolation schema, Young and colleagues suggest the goal of therapy should be to help patients feel less different from other people (Young et al., 2003). They suggest that group therapy may be an important vehicle of change for these people, especially groups containing members who are similar to the person in some significant way (e.g. bulimia nervosa groups). Through cognitive strategies, clients should learn to focus on their similarities with other people as well as identifying their differences, and learn to challenge beliefs that discourage them from joining groups and connecting with people. Also, behavioural techniques, such as graded exposure, anxiety management and social skills training, help them to overcome avoidance of social situations, which is a recurrent theme for individuals with these difficulties (Young et al., 2003).

Results of the current study support the importance of shame in the development and maintenance of eating disorders. Such issues can have implications for therapy. Shame can threaten therapeutic relationships as it involves withdrawal and concealment, which can hinder the therapeutic process and impede disclosure of personal feelings and experiences necessary for treatment. Shame can also be difficult to discover due to it being hidden (Skarderud, 2003). Swan and Andrews (2003) explored the relationship between shame and non-disclosure of important issues during therapy with an eating disordered population. A substantial proportion (42%) admitted to concealing aspects of their difficulties from their therapist. Non-disclosure was associated with higher characterological and behavioural shame and higher shame around eating, but not with higher bodily shame. This has obvious therapeutic implications, in terms of making a correct diagnosis and formulation of the client's difficulties and offering the most effective interventions.

It has recently been suggested that technology-based therapies may be more suited to those with "shame-based" difficulties such as eating disorders (Simpson et al., 2005). Those who are extremely self-conscious about their weight and shape and are ashamed of their bodies may find face-to-face therapy particularly uncomfortable, which, in turn, may impede concentration and engagement and thus the development of therapeutic relationships. Video therapy may help to initially facilitate the development of a therapeutic rapport with those for whom shame is a significant factor by providing the "distance" or space required to minimise shame experienced in therapy. However, it is advised that "shame" be directly addressed at an appropriate point so that it can be worked on, rather than avoided altogether (Simpson et al., 2004).

There is much research to suggest that anonymity contributes to higher levels of self-disclosure and openness (e.g. Utz, 2000). Low thresholds for disclosure can be useful for persons struggling with shame, secrets and isolation. E-media (online therapy, computer based technologies) may be a therapeutic possibility for clients who, because of their personality or problems, do not seek traditional therapy (Skarderud, 2003). The anonymity may provide a forum whereby they feel more able to disclose issues for which they feel ashamed, providing an opportunity for them to work through these difficulties in a safe environment.

MacDonald and Morley (2001) found that shame was the emotion psychotherapy clients were most ashamed of disclosing. Therapists should be aware of the high levels of shame within eating disordered populations and expect some concealment as a result. As such, issues of shame should be approached directly and the individual helped to feel comfortable with the idea of shame in order to aid disclosure of shameful experiences or feelings (Gilbert, 1998). The results of the current study suggest that therapeutic work should begin at a schema level rather than at a symptom level. Until the underlying sense of shame and other dysfunctional schemata are addressed, the eating disorder could be fulfilling too great a function for the individual to be able to give it up safely. It is possible that this is a factor in the high rates of relapse observed across this group (Herzog, Dorer,

Keel et al., 1999). The fact that the average length of treatment of the current sample was 3.1 years highlights the chronicity and complexity of their difficulties. Therapists should also explore the function of the eating disorder symptoms with the client by means of enhancing self-acceptance and compassion. By helping the individual view their difficulties as adaptive strategies for coping with difficult beliefs and emotions, they will gain greater empathy for themselves, thus undermining the shame around these behaviours (Gilbert, 1998).

The results of the current study suggest that less attention should be spent identifying family factors in assessing and formulating eating disorders, where these factors are not initially obvious. Shifting the emphasis from exploring relationships with parents to exploring relationships with peers could be therapeutically beneficial. There is lots of research to suggest parental influences in the development of eating disorders. However, criticisms of this research highlight the lack of evidence to support any causative link. Identifying and exploring negative influences of parents can be particularly challenging to individuals, regardless of the quality of relationships with their parents. Also, it is unhelpful when parents blame themselves for their children's difficulty as this can further complicate the relationship and may lead to an exacerbation of the problems.

4.4 Implications for Future Research

The current research identified several associated areas of research worth pursuing.

In terms of exploring the development of eating disorders, future research should look for interactions between aetiological factors to provide a better understanding of these, rather than exploring these in isolation. By doing this, there is the potential to integrate identified factors more successfully into a coherent model of predisposing, precipitating, maintaining and protective factors. The results from the current study suggest more research on the impact of bullying in childhood on the later development of eating disorders could enhance our understanding of eating disorders aetiology. Also, further exploration of the role of bullying on the development of shame seems to be an important area of future research. Given the significance of

bullying and subsequent dysfunctional schemata observed in this study on the development of shame, it seems pertinent that this be examined more carefully. This study has clearly identified an area of shame research which has until now been largely overlooked.

The current research has begun to identify the factors contributing to shame in individuals with eating disorders. However, the complex relationship between shame and eating disorders requires further research. Specifically, only speculative interpretations can be made about the associations between the identified factors and shame in this population and what role this shame has in the development or maintenance of eating disorders. The case examples discussed provide unique and valuable insights into the individuals' difficulties; suggesting that qualitative and interview-based research might be important tools to progress this area of research.

4.5 Limitations of the Study

Several limitations of this study are identified and should be acknowledged in the interpretation of the current results.

This study did not ask respondents to indicate whether they had experienced any forms of abuse in their childhood. The decision to omit this was based on the number of measures already included in the study and unwillingness to place further demands on the respondents. It was feared that participants might be reluctant to answer questions in relation to abuse resulting in a poorer response rate. However, it is acknowledged that different results might have been observed if occurrence of abuse had been measured and entered into the regression analysis. As noted above the absence of a measure of guilt is also a limitation. It would have been preferable to eliminate any confounding influence of guilt on the current results, in order to establish the specificity of the model to shame.

The EDDS symptom composite was possibly not a suitable measure of eating disorder symptoms. Scores for individuals with bulimia nervosa were significantly higher than those of individuals with a diagnosis of either anorexia nervosa or

EDNOS. This is a result of the method of scoring used to obtain the symptom composite (i.e. summing episodes of bingeing, vomiting and fasting) and therefore may not reflect actual severity of difficulties. However, more shame is theoretically linked to behaviours of bingeing and vomiting than to restricting, thus the measure is therefore possibly appropriate, but this is important to bear in mind.

There are questions raised as to the suitability of the PBI as a measure of perceived parental bonding. Low protection scores are assumed to be a positive aspect of parenting, however this could reflect neglect if very low, especially in the context of a low care relationship. Correlations between the PBI subscales in this study indicate that, although not significant, there are negative associations between the care and protectiveness measures, suggesting that low care is associated with higher levels of protectiveness for both parents. However, it is possible that due to low and high protectiveness being indicative of less optimal parenting the effects of protectiveness in the development of shame were masked by low and high scores on these measures cancelling each other out. Also, participants were required to recall past experiences with their parents, raising the possibility of selective memories in their retrospective reports. Results may reflect the fact that some people were more willing to acknowledge negative events and experiences. However, as previously noted, a review of studies examining adult memories of early parenting, suggests that such recall is more reliable and consistent than is sometimes thought (Brewin, et al., 1993). Finally, the PBI tends to focus on the presence or absence of positive valuing signals, without measuring directly more negative signals such as shaming. It is possible that it is the presence of more negative shaming interactions, rather than the absence of positive aspects of the parent-child relationship that are more significant in the development of shame and psychopathology.

Despite seeking recruitment through two sources, Grampian Eating Disorders Service and the Eating Disorders Association, the response rate (47%) was a little disappointing, however, final numbers were sufficient for the analysis. It is possible that the issue of shame influenced willingness to participate, affecting the ability of participants to disclose certain information, despite assurance of confidentiality and

anonymity. Caution is therefore needed in generalising the results beyond the present sample. In addition, as there were no male participants recruited to the study the results can not be generalised to men. The current study has produced results worthwhile of replicating with a larger sample, in a male sample, and possibly using alternative measures of eating disorder severity and parental bonding.

Occurrence of bullying/teasing was measured using only limited yes/no items. Given the hypothesised importance of the experience of bullying and teasing in the development of the Social Isolation schema a more detailed and systematic investigation of these experiences may have enhanced our understanding of the role of this schema in the development of shame. It can not be established whether this bullying was specifically in relation to appearance. A scale such as the Perception of Teasing Scale (POTS; Thompson, Cattarin, Fowler & Fisher, 1995) would have allowed for this exploration and provided richer information on the effect of bullying/teasing which could have been entered into the regression equation. There is a definite dearth of research exploring the relationship between bullying/teasing and shame. In addition, much of the research exploring these experiences in relation to eating disorders focuses on teasing about appearance. Given the current findings, it seems important for future research to expand on our knowledge of the role of bullying/teasing on both subsequent shame and eating disordered behaviours.

Having noted limitations with the measures used, they were chosen on the basis of their good psychometric properties and their use across comparable studies. The aim of outlining their disadvantages is to make the reader aware of these and to suggest caution in their interpretation of the findings, not to suggest they were inappropriate for the current purpose as flaws can be observed in all self-report measures.

4.6 Conclusion

This study provides further support for the importance of shame in the development and maintenance of eating disorders. Results also highlight the importance of exploring both early experiences and current symptoms as sources of shame in the assessment and treatment of eating disordered individuals. The current focus in the

literature on the role of early experiences across both shame and eating disorders centres on investigating the role of early family interactions. However, it seems more attention should be given to exploring the impact of peer relationships, an area of research in need of expansion.

References

References

Ainsworth, M.D.S. (1989). Attachments beyond infancy. *American Psychologist, 44, 709-716.*

Alexander-Mott, L. & Lumsden, D.B. (Eds.)(1994). Understanding Eating Disorders. Washington DC: Taylor & Francis.

Allan, S, Gilbert, P., & Goss, K. (1994). An exploration of shame measures – II Psychopathology. *Personality and Individual Differences, 17, 719-722.*

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV).* Washington, DC: APA.

Andersen, A.E., & DiDomenico, L. (1992). Diet vs. shape content of popular male and female magazines: A dose-response relationship to the development of eating disorders? *International Journal of Eating Disorders, 11, 283-287.*

Andrews, B. (1995). Bodily shame as a mediator between abusive experiences and depression. *Journal of Abnormal Psychology, 104, 277-285.*

Andrews, B. (1997). Bodily shame in relation to abuse in childhood and bulimia: A preliminary investigation. *British Journal of Clinical Psychology, 36, 41-49.*

Andrews, B. (1998). Methodological and definitional issues in shame research. In P. Gilbert & B. Andrews (Eds.). *Shame: Interpersonal behaviour, psychopathology, and culture* (pp.39-57). New York: Oxford University Press.

Andrews, B. (2002). Body shame and abuse in childhood. In P. Gilbert & J. Miles (Eds.). *Body Shame: Conceptualisation, research and treatment* (pp.256-266). Hove: Brunner-Routledge.

Andrews, B., & Hunter, E. (1997). Shame, early abuse and course of depression in a clinical sample: A preliminary study. *Cognition and Emotion, 11, 373-381.*

Andrews, B., Qian, M., & Valentine, J.D. (2002). Predicting depressive symptoms with a new measure of shame: The experience of shame scale. *British Journal of Clinical Psychology, 41, 29-42.*

Barnett, P.A., & Gotlib, I.H. (1988). Psychosocial functioning and depression: Distinguishing among antecedents, concomitants and consequences. *Psychological Bulletin, 104, 97-126.*

Barrett, K.C. (1998). A functionalist approach to shame and guilt development. In J.P. Tangney & K.W. Fisher (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (pp. 25-63). New York: Guilford.

Bjelland, I., Dahl, A.A., Haug, T.T., & Neckelmann, D. (2002). The validity of the Hospital Anxiety and Depression Scale: An updated literature review. *Journal of Psychosomatic Research, 52, 69-77.*

Bowlby, J. (1969). *Attachment and loss*, vol.1, *Attachment*. New York: Basic Books, and London: Hogarth (2nd revised edition, 1982).

Brewin, C.R., Andrews, B., & Gotlib, I.H. (1993). Psychopathology and early experiences: A reappraisal of retrospective reports. *Psychological Bulletin, 113(1), 82-98.*

Brown, H. (1991). Shame and relapse issues with the chemically dependent client. *Alcoholism Treatment Quarterly, 8, 77-82.*

Brownell, K.D., & Fairburn, C.G. (Eds) (1995). *Eating Disorders and Obesity: A Comprehensive Handbook.* New York: The Guilford Press.

Bulik, C. (1987). Drug and alcohol abuse by bulimic women and their families. *American Journal of Psychiatry, 144, 1604-1606.*

Bulik, C.M., Sullivan, P.F., Fear, J.L., & Pickering, A. (2000). Outcome of Anorexia Nervosa: Eating attitudes, personality, and parental bonding. *International Journal of Eating Disorders, 28, 139-147.*

Bulik, C.M., Sullivan, P.F., Joyce, P.R., & Carter, F.A. (1995). Temperament, character, and personality disorder in bulimia nervosa. *Journal of Nervous and Mental Disease, 183, 593-598.*

Bulik, C.M., Sullivan, P.F., Wade, T.D., & Kendler, K.S. (2000). Twin studies of eating disorders: a review. *International Journal of Eating Disorders, 27, 1-20.*

Burney, J., & Irwin, H.J. (2000). Shame and guilt in women with eating disorder symptomatology. *Journal of Clinical Psychology, 56(1), 51-61.*

Bybee, J., Zigler, E., Berliner, D., & Merisca, R. (1996). Guilt, guilt-evoking events, depression, eating disorders. *Current Psychology, 15, 113-127.*

Calam, R., Waller, G., Slade, P., & Newton, T. (1990). Eating disorders and perceived relationships with parents. *International Journal of Eating Disorders, 9, 479-485.*

Campos, J.J., Frankel, C.B., & Camras, L. (2004). On the nature of emotion regulation. *Child Development, 75, 377-394.*

Cattarin, J., & Thompson, J.K. (1994). A three-year longitudinal study of body image and eating disturbance in adolescent females. *Eating Disorders: The Journal of Treatment and Prevention, 2, 114-125.*

Cheung, M.S.-P., Gilbert, P., & Irons, C. (2004). An exploration of shame, social rank, and rumination in relation to depression. *Personality and Individual Differences, 36, 1143-1153.*

Chorpita, B.F., & Barlow, D.H. (1998). The development of anxiety: The role of control in the early environment. *Psychological Bulletin, 124, 3-21.*

Cochrane, C.E., Brewerton, T.D., Wilson, D.B., & Hodges, E.L. (1993). Alexithymia in eating disorders. *International Journal of Eating Disorders, 14, 219-222.*

Cohen, J. (1992). Quantitative methods in psychology: A power primer. *Psychological Bulletin, 112(1), 155-159.*

Cook, D.R. (1994). *Internalised Shame Scale: Professional Manual.* Menomonie, WI: Channel Press.

Cooper, P.J. (1995a). Eating disorders and their relationship to mood and anxiety disorders. In K.D. Brownell & C.G. Fairburn (Eds). *Eating Disorders and Obesity: A Comprehensive Handbook, pp. 159-164.* New York: The Guilford Press.

Cooper, P.J. (1995b). The development and maintenance of eating disorders. In Brownell, K.D., & Fairburn, C.G. (Eds). *Eating Disorders and Obesity: A Comprehensive Handbook, pp. 199-206.* New York: The Guilford Press.

Cooper, J.M., Todd, G., & Wells, A. (1998). Content, origins and consequences of dysfunctional beliefs in anorexia nervosa and bulimia nervosa. *Journal of Cognitive Psychotherapy, 12, 213-230.*

Currin, L., Schmidt, U., Treasure, J., & Jick, H. (2005). Time trends in eating disorder incidence. *British Journal of Psychiatry, 186, 132-135.*

De Panfilis, C., Rabbaglio, P., Rossi, C., Zita, G., & Maggini, C. (2003). Body image disturbance, parental bonding and alexithymia in patients with eating disorders. *Psychopathology, 36, 239-246.*

De Zwaan, M. (2003). Basic neuroscience and scanning. In J. Treasure, U. Schmidt, & E. van Furth (Eds.). *Handbook of Eating Disorders (2nd Edition)*(pp.89-103). Chichester: John Wiley & Sons Ltd.

Fairburn, C. (1981). A cognitive-behavioural approach to the treatment of bulimia. *Psychological Medicine, 11, 707-711.*

Fairburn, C.G., & Cooper, Z. (1993). The eating disorder examination (12th ed.). In C. Fairburn & G. Wilson (Eds.). *Binge eating: Nature, assessment and treatment,* (pp. 317-360). New York: Guilford Press.

Fairburn, C.G., Cooper, Z., Doll, H.A., & Welch, S.L. (1999). Risk factors for anorexia nervosa: three integrated case control comparisons. *Archives of General Psychiatry, 56, 468-476.*

Fairburn, C.G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment. *Behaviour, Research and Therapy, 41, 509-528.*

Fairburn, C.G., & Harrison, P.J. (2003). Eating disorders. *Lancet, 361, 406-416.*

Fairburn, C.G., & Walsh, B.T. (1995). Atypical eating disorders. In K.D. Brownell & C.G. Fairburn (Eds.). *Eating Disorders and Obesity: A Comprehensive Handbook,* (pp. 135-140). New York: The Guilford Press.

Fairburn, C.G., Welch, S.L., Doll, H.A., Davies, B.A., & O'Connor, M.E. (1997). Risk factors for bulimia nervosa: A community-based case-control study. *Archives of General Psychiatry, 54, 509-517.*

Frank, E.S. (1991). Shame and guilt in eating disorders. *American Journal of Orthopsychiatry, 61(2), 303-306.*

Gabarino, J.J. (1998). Comparison of the constructs and psychometric properties of selected measures of adult attachment. *Measurement and Evaluation in Counselling and Development, 31(1), 18-28.*

Garfinkel, P.E. (1995). Classification and diagnosis of eating disorders. In K.D. Brownell & C.G. Fairburn (Eds). *Eating Disorders and Obesity: A Comprehensive Handbook* (pp. 125-134). New York: The Guilford Press.

Garner, D.M., & Garfinkel, P.E. (Eds) (1997). *Handbook of Treatment of Eating Disorders (2nd Edition).* New York: The Guilford Press.

Garner, D.M., Olmstead, M.P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders, 2(2), 15-34.*

Gee, A., & Troop, N.A. (2003). Shame, depressive symptoms and eating, weight and shape concerns in a non-clinical sample. *Eating and Weight Disorders, 8, 72-75.*

Gerlsma, C., Emmelkamp, P.M.G., & Arrindell, W.A. (1990). Anxiety, depression, and perception of parenting: A meta-analysis. *Clinical Psychology Review, 10, 251-277.*

Gilbert, P. (1989). *Human Nature and Suffering.* Hove, UK: Lawrence Earlbaum Ltd.

Gilbert, P. (1992). *Depression: The Evolution of Powerlessness.* Hove, UK: Lawrence Earlbaum Associates Ltd. and New York: Guilford Press.

Gilbert, P. (1997). The evolution of social attractiveness and its role in shame, humiliation, guilt and therapy. *British Journal of Medical Psychology, 70, 113-147.*

Gilbert, P. (1998a). What is shame? Some core issues and controversies. In P. Gilbert & B. Andrews (Eds.), *Shame: interpersonal behaviour, psychopathology and culture* (pp. 3-38). New York: Oxford University Press.

Gilbert, P. (1998b). Shame and humiliation in the treatment of complex cases. In N. Tarrier, A. Wells, & G. Haddock (Eds.). *Treating complex cases: The cognitive behavioural therapy approach* (pp. 241-271). London: Wiley.

Gilbert, P. (2002). Body shame: A biopsychosocial conceptualisation and overview, with treatment implications. In P. Gilbert & J. Miles (Eds.). *Body Shame: Conceptualisation, research and treatment*, (pp.3-54). Hove: Brunner-Routledge.

Gilbert, P., Allan, S., & Goss, K. (1996). Parental representations, shame, interpersonal problems, and vulnerability to psychopathology. *Clinical Psychology and Psychotherapy, 3(1), 23-34.*

Gilbert, P. & Andrews, B. (1998). *Shame: Interpersonal behaviour, psychopathology and culture.* New York: Oxford University Press.

Gilbert, P., & Miles, J. (2002). *Body Shame: Conceptualisation, research and treatment.* Hove: Brunner-Routledge.

Gilbert, P., Pehl, J., & Allan, S. (1994). The phenomenology of shame and guilt: An empirical investigation. *British Journal of Medical Psychology, 67, 23-36.*

Gongora, V.C., Derksen, J.J.L., & van Der Staak, C.P.F. (2004). The role of core beliefs in the specific cognitions of bulimic patients. *The Journal of Nervous and Mental Disease, 192(4), 297-300.*

Goss, K., & Gilbert, P. (2002). Eating disorders, shame and pride: A cognitive-behavioural functional analysis. In P. Gilbert & J. Miles, (Eds.) *Body Shame: Conceptualisation, research and treatment*, (pp. 219-255). Hove: Brunner-Routledge.

Gross, C.A., & Hansen, N.E. (2000). Clarifying the experience of shame: The role of attachment style, gender, and investment in relatedness. *Personality and Individual Differences, 28, 897-907.*

Gusella, J., Butler, G., Nichols, L., & Bird, D. (2003). A brief questionnaire to assess readiness to change in adolescents with eating disorders: Its applications to group therapy. *European Eating Disorders Review, 11, 58-71.*

Halmi, K.A. (1995). Current concepts and definitions. In G. Szmukler, C. Dare, & J. Treasure (Eds). *Handbook of Eating Disorders: Theory, Treatment and Research (pp.29-42).* Chichester: John Wiley & Sons.

Harder, D.W., Cutler, L., & Rockart, L. (1992). Assessment of shame and guilt and their relationships to psychopathology. *Journal of Personality Assessment, 59(3), 584-604.*

Harder, D.W. & Zalma, A. (1990). Two promising shame and guilt scales: a construct validity comparison. *Journal of Personal Assessment, 55, 729-745.*

Hartt, J., & Waller, G. (2002). Child abuse, dissociation, and core beliefs in bulimic disorders. *Child Abuse & Neglect, 26, 923-938.*

Hawker, D.S.G., & Boulton, M.J. (2000). Twenty years research on peer victimisation and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry, 41, 441-455.*

Hayaki, J., Friedman, M.A., & Brownell, K.D. (2002). Shame and severity of bulimic symptoms. *Eating Behaviours, 3, 73-83.*

Heatherton, T.F., & Baumeister, R.F. (1991). Binge eating as escape from self-awareness. *Psychological Bulletin, 110, 86-108.*

Hebebrand, J., & Remschmidt, H. (1995). Anorexia nervosa viewed as an extreme weight condition: genetic implications. *Human Genetics, 95, 1-11.*

Heiss, G.E., Berman, W.H., & Sperling, M.B. (1996). Five scales in search of a construct: Exploring continued attachment to parents in college students. *Journal of Personality Assessment, 67(1), 102-115.*

Helgeland, J.I., & Torgersen, S. (1997). Maternal representations of patients with schizophrenia as measured by the Parental Bonding Instrument. *Scandinavian Journal of Psychology, 38, 39-43.*

Herrmann, C. (1997). International experiences with the hospital anxiety and depression scale: a review of validation data and clinical results. *Journal of Psychometric Research, 42, 17-41.*

Herzog, D.B., Dorer, D.J., Keel, P.K., Selwyn, S.E., Ekeblad, E.R., Flores, A.T., Greenwood, D.N., Burwell, R.A., & Keller, M.B. (1999). Recovery and relapse in anorexia and bulimia nervosa: A 7.5-year follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry, 38(7), 829-837.*

Hoek, H.W. (1991). The incidence and prevalence of anorexia nervosa and bulimia nervosa in primary care. *Psychological Medicine, 21, 455-460.*

Hoek, H.W. (1993). Review of epidemiological studies of eating disorders. *International Review of Psychiatry, 5, 61-74.*

Hoek, H.W., & van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders, 34, 383-396.*

Hyde, G.E. (2003). The role of shame in social anxiety. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 63(8B), 3918.*

Johnson, C., & Larson, R. (1982). Bulimia: An analysis of moods and behaviour. *Psychosomatic Medicine, 44(4), 341-351.*

Johnson, R.C., Danko, G.P., Huang, Y.H., Park, J.Y., Johnson, S.B., & Nagoshi, C.T. (1987). Guilt, shame and adjustment in three cultures. *Personality and Individual Differences, 8, 357-364.*

Kaufman, G. (1989). *The psychology of shame: Theory and treatment of shame-based syndromes.* New York: Springer.

Kaye, W.H., Bulik, C.M., Thornton, L., Barbarich, N., & Masters, K. (2004). Comorbidity of anxiety disorders with anorexia and bulimia nervosa. *The American Journal of Psychiatry, 161 (12), 2215-2221.*

Kaye, W.H., Lilenfeld, L.R., Berrettini, W.H., Strober, M., Devlin, B., Klump, K.L., Goldman, D., Bulik, C.M., Halmi, K.A., Fichter, M.M., Kaplan, A., Woodside, D.B., Treasure, J., Plotnicov, K.H., Pollice, C., Rao, R., & McConaha, C.W. (2000). A search for susceptibility loci for anorexia nervosa: methods and sample description. *Biological Psychiatry, 47, 794-803.*

Kinston, W. (1987). The shame of narcissism. In D.L. Nathanson (Ed.), *The many faces of shame* (pp. 214-245). New York: Guilford Press.

Klump, K.L., Strober, M., Bulik, C.M., Thornton, L., Johnson, C., Devlin, B., Fichter, M.M., Halmi, K.A., Kaplan, A.S., Woodside, D.B., Crow, S., Mitchell, J., Rotondo, A., Keel, P.K., Berrettini, W.H., Plotnicov, K., Pollice, C., Lilenfeld, L.R., & Kaye, W. (2004). Personality characteristics of women before and after recovery from an eating disorder. *Psychological Medicine, 34, 1407-1418.*

Kugler, K. & Jones, W.H. (1992). On conceptualising and assessing guilt. *Journal of Personality and Social Psychology, 62, 318-327.*

Leung, N., Thomas, G., & Waller, G. (2000a). The relationship between parental bonding and core beliefs in anorexic and bulimic women. *British Journal of Clinical Psychology, 39, 205-213.*

Leung, N., Waller, G., & Thomas, G. (1999). Core beliefs in anorexic women. *The Journal of Nervous and Mental Diseases, 187(12), 736-741.*

Leung, N., Waller, G., & Thomas, G. (2000b). Outcome of group cognitive-behaviour therapy for bulimia nervosa: The role of core beliefs. *Behaviour, Research and Therapy, 38, 145-156.*

Lewis, H.B. (1971). *Shame and Guilt in Neurosis.* New York: International Universities Press.

Lewis, M. (1992). *Shame: The exposed self.* New York: Free Press.

Lewisohn, P.M., Striegel-Moore, R.H., & Seeley, J.R. (2000). Epidemiology and natural course of eating disorders in young women from adolescence to young adulthood. *Journal of the American Academy of Child and Adolescent Psychiatry, 39, 1284-1292.*

Lilenfeld, L.R., Kaye, W.H., Greeno, C.G., Merikangas, K.R., Plotnicov, K., Pollice, C., Rao, R., Strober, M., Bulik, C.M., & Nagy, L. (1998). A controlled family study of anorexia nervosa and bulimia nervosa: psychiatric disorders in first-degree relatives and effects of proband comorbidity. *Archives of General Psychiatry, 55, 603-610.*

Lindsay-Hartz, J. (1985). Contrasting experiences of shame and guilt. American *Behavioural Scientist, 27(6), 689-704.*

Lingswiller, V.M., Crowther, J.H., & Stephens, M.A.P. (1989). Emotional and somatic consequences of binge episodes. *Addictive Behaviours, 14, 155-166.*

Lizardi, H., & Klein, D.N. (2005). Long-term stability of parental representations in depressed outpatients utilising the parental bonding instrument. *The Journal of Nervous and Mental Diseases, 193(3), 183-188.*

Lopez, F.G., Gover, M.R., Leskela, J., Sauer, E.M., Schirmer, L., & Wyssmann, J. (1997). Attachment styles, shame, guilt, and collaborative problem-solving orientations. *Personal Relationships, 4, 187-199.*

Lowe, B., Spitzer, R.L., Grafe, K., Kroenke, K., Quenter, A., Zipfel, S., Buchholz, C., Witte, S., & Herzog, W. (2004). Comparative validity of three screening questionnaires for DSM-IV depressive disorders and physicians' diagnoses. *Journal of Affective Disorders, 78, 131-140.*

Lunnar, K., Wertheim, E.H., Thompson, J.K., Paxton, S.J., McDonald, F., & Halvaarson, K.S. (2000). A cross-cultural examination of weight-related teasing, body image, and eating disturbance in Swedish and Australian samples. *International Journal of Eating Disorders, 28, 430-435.*

Lutwak, N. & Ferrari, J.R. (1997). Understanding shame in adults: Retrospective perceptions of parental-bonding during childhood. *The Journal of Nervous and Mental Diseases, 185(10), 595-598.*

MacDonald, J. & Morley, I. (2001). Shame and non-disclosure: A study of the emotional isolation of people referred for psychotherapy. *British Journal of Medical Psychology, 74, 1-21.*

McKinley, N.M., & Hyde, J.S. (1996). The objectified body consciousness scale: Development and validation. *Psychology of Women Quarterly, 20, 181-285.*

Martin, G., & Waite, S. (1994). Parental bonding and vulnerability to adolescent suicide. *Acta Psychiatrica Scandinavica, 89, 246-254.*

Matsunaga, H., Kaye, W., & McConaha, S. (2000). Personality disorders among subjects recovered from eating disorders. *International Journal of Eating Disorders, 27, 353-357.*

Mills, R.S.L. (2005). Taking stock of the developmental literature on shame. *Developmental Reviews, 25, 26-63.*

Meyer, C., & Gillings, K. (2004). Parental bonding and bulimic psychopathology: The mediating role of Mistrust/Abuse beliefs. *International Journal of Eating Disorders, 35, 229-233.*

Mokros, H.B. (1995). Suicide and shame. *American Behavioural Scientist, 38, 1091-1103.*

Mollon, P. (1984). Shame in relation to narcissistic disturbance. *British Journal of Medical Psychology, 57, 207-214.*

Murray, C., & Waller, G. (2002). Reported sexual abuse and bulimic psychopathology among non-clinical women: The mediating role of shame. *International Journal of Eating Disorders, 32, 186-191.*

Murray, C., Waller, G., & Legg, C. (2000). Family dysfunction and bulimic psychopathology: The mediating role of shame. *International Journal of Eating Disorders, 28, 84-89.*

Nathanson D.L. (1987). *The many faces of shame.* New York: Guilford Press.

Nathanson, D.L. (1994). Shame, compassion and the "borderline" personality. *Psychiatric Clinics of North America, 17, 785-810.*

Ngai, E.S., Lee, S., & Lee, A.M. (2000). The variability of phenomenology in anorexia nervosa. *Acta Psychiatrica Scandinavica, 102, 314-317.*

Niedenthal, P.M., Tangney, J.P., & Gavanski, I. (1994). "If only I weren't" versus "if only I hadn't": Distinguishing shame and guilt in counterfactual thinking. *Journal of Personality and Social Psychology, 67(4), 585-595.*

Noll, S.M., & Fredrickson, B.L. (1998). A mediational model linking self-objectification, body shame and disordered eating. *Psychology of Women Quarterly, 22, 623-636.*

O'Kearney, R. (1996). Attachment disruption in anorexia nervosa and bulimia nervosa: A review of theory and empirical research. *International Journal of Eating Disorders, 20, 115-127.*

Palmer, R.L., Oppenheimer, R., & Marshall, P.D. (1988). Eating disordered patients remember their parents: A study using the parental bonding instrument. *International Journal of Eating Disorders, 7, 101-106.*

Parker, G., Tupling, H., & Brown, L.B. (1979). A parental bonding instrument. *British Journal of Medical Psychology, 52, 1-10.*

Pia, C. & Toro, J. (1999). Anorexia nervosa in a Spanish adolescent sample: An 8-year longitudinal study. *Acta Psychiatrica Scandinavica, 100, 441-446.*

Piaget, J. (1954). *The construction of reality in the child* (M.Cook, Trans.) New York: Basic Books. (Original work published 1937)

Pole, R., Waller, G., Stewart, S., & Parkin-Feigenbaum, L. (1988). Parental caring versus overprotection in bulimia. *International Journal of Eating Disorders, 7, 601-606.*

Qian, M., Andrews, B., Zhu, R., & Wang, A. (2000). The development of the shame scale for Chinese students. *Chinese Mental Health Journal, 14(4), 217-221.*

Ramacciotti, A., Sorbello, M., Pazzagli, A., Vismara, L., Mancone, A., & Pallanti, S. (2001). Attachment processes in eating disorders. *Eating and Weight Disorders, 6(3), 166-170.*

Rosen, J.C., Leitenberg, H., Fisher, C., & Khazam, C. (1986). Binge-eating episodes in bulimia nervosa: the amount and type of food consumed. *International Journal of Eating Disorders, 5, 255-267.*

Russell, G.F.M. (1979). Bulimia nervosa: an ominous variant of anorexia nervosa. *Psychological Medicine, 9, 429-448.*

Russell, G.F.M. (1995). Anorexia nervosa through time. In G. Szmukler, C. Dare, & J. Treasure (Eds). *Handbook of Eating Disorders: Theory, Treatment and Research* (pp. 5-17). Chichester: John Wiley & Sons.

Sanftner, J.L., Barlow, D.H., Marschall, D.E., & Tangney, J.P. (1995). The relation of shame and guilt to eating disorder symptomatology. *Journal of Social and Clinical Psychology, 14(4), 315-324.*

Schmidt, N.B., Joiner, T.E., Young, J.E., & Telch, M.J. (1995). The schema questionnaire: Investigation of psychometric properties and the hierarchical structure of a measure of maladaptive schemas. *Cognitive Therapy and Research, 19(3), 295-321.*

Schmidt, U. (2003). Aetiology of eating disorders in the 21st century. *European Child and Adolescent Psychiatry (Suppl 1), 12, 30-37.*

Schmidt, U., Humfress, H., & Treasure, J. (1997a). The role of general family environment and sexual and physical abuse in the origins of eating disorders. *European Eating Disorders Review, 5(3), 184-207.*

Schmidt, U., Jiwany, A., & Treasure, J. (1993). A controlled study of alexithymia in eating disorders. *Comprehensive Psychiatry, 34(1), 54-58.*

Schmidt, U., Tiller, M., Blanchard, B., Andrews, B., & Treasure, J. (1997b). Is there a specific trauma precipitating anorexia nervosa? *Psychological Medicine, 27, 523-530.*

Schore, A.N. (1996). The experience-dependent maturation of a regulatory system in the orbital prefrontal cortex and the origin of developmental psychopathology. *Development and Psychopathology, 8, 59-87.*

Schore, A.N. (1998). Early shame experiences and infant brain development. In P. Gilbert & B. Andrews (Eds.) *Shame: Interpersonal behaviour, psychopathology and culture* (pp. 57-77). London: Oxford University Press.

Schupak-Neuberg, E., & Nemeroff, C. (1993). Disturbances in identity and self-regulation in bulimia nervosa: Implications for a metaphorical perspective of "body as self". *International Journal of Eating Disorders, 13, 335-347.*

Serpell, L. & Troop, N. (2003). Psychological factors. In J. Treasure, U. Schmidt, & E. van Furth (Eds.). *Handbook of Eating Disorders (2nd Ed.)*(pp. 151-169). Chichester: John Wiley & Sons Ltd.

Shah, R., & Waller, G. (2000). Parental style and vulnerability to depression: The role of core beliefs. *The Journal of Nervous and Mental Diseases, 188(1), 19-25.*

Simpson, S., Bell, L., Knox, J., & Mitchell, D. (2005). Therapy via videoconferencing: a route to client empowerment? *Clinical Psychology and Psychotherapy, 12, 156-165.*

Skarderud, F. (2003). Sh@me in Cyberspace: Relationships without faces: the e-media and eating disorders. *European Eating Disorders Review, 11, 155-169.*

Sloan, D.M., Mizes, J.S., & Epstein, E.M. (2005). Empirical classification of eating disorders. *Eating Behaviours, 6, 53-62.*

Spitzer, R.L., Williams, J.B., Gibbon, M., & First, M.B. (1990). *Structured Clinical Interview for DSM-III-R (SCID).* Washington, DC: American Psychiatric Press.

Spitzer, R., Devlin, M.J., Walsh, B.T., Hasin, D., Wing, R., Marcu, M., Stunkard, A., Wadden, T., Yanovski, S., Agras, S., Mitchell, J., & Nonas, C. (1992). Binge eating disorder: Multisite field trial of the diagnostic criteria. *International Journal of Eating Disorders, 11, 191-203.*

Stice, E. (2002). Risk and maintenance factors for eating pathology: a meta-analytic review. *Psychological Bulletin, 128(5), 825-848.*

Stice, E., Fisher, M., & Martinez, E. (2004). Eating disorder diagnostic scale: Additional evidence of validity and reliability. *Psychological Assessment, 16(1), 60-71.*

Stice, E., & Ragan, J. (2002). A preliminary controlled evaluation of an eating disturbance psychological intervention for college students. *International Journal of Eating Disorders, 31, 159-171.*

Stice, E., Telch, C.F., & Rizvi, S.L. (2000). Development and validation of the eating disorder diagnostic scale: A brief self-report measure of anorexia, bulimia and binge-eating disorder. *Psychological Assessment, 12(2), 123-131.*

Swan, S., & Andrews, B. (2003). The relationship between shame, eating disorders and disclosure in treatment. *British Journal of Clinical Psychology, 42, 367-378.*

Szmukler, G., Dare, C., & Treasure, J. (Eds) (1995). *Handbook of Eating Disorders: Theory, Treatment and Research.* Chichester: John Wiley & Sons.

Tabachnick, B.G. & Fidell, L.S. (2001). *Using Multivariate Statistics (4th Edition).* London: Allyn and Bacon.

Tangney, J.P. (1990). Assessing individual differences in proneness to shame and guilt; Development of the Self-Conscious Affect and Attribution Inventory. *Journal of Personality and Social Psychology, 59(1), 102-111.*

Tangney, J.P. (1991). Moral affect: The good, the bad and the ugly. *Journal of Personality and Social Psychology, 61(4), 598-607.*

Tangney, J.P. (1996). Conceptual and methodological issues in the assessment of shame and guilt. *Behavioural Research and Therapy, 34(9), 741-754.*

Tangney, J.P., & Fisher, K.W. (1998). *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride.* New York: Guilford.

Tangney, J.P., Miller, R.S., Flicker, L., & Barlow, D.H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology, 70(6), 1256-1269.*

Tangney, J.P., Wagner, P., Fletcher, C., & Gramzow, R. (1992a). Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology, 62(4), 669-675.*

Tangney, J.P., Wagner, P., & Gramzow, R. (1989). *The Test of Self-Conscious Affect.* Fairfax, VA: George Mason University.

Tangney, J.P., Wagner, P., & Gramzow, R. (1992b). Proneness to shame, proneness to guilt and psychopathology. *Journal of Abnormal Psychology, 101(3), 469-478.*

Thompson, J.K., Cattarin, J., Fowler, B., & Fisher, E. (1995). The Perception of Teasing Scale (POTS): A revision and extension of the Physical Appearance Related Teasing Scale (PARTS). *Journal of Personality Assessment, 65(1), 146-157.*

Thompson, J.K., Coovert, M.D., & Stormer, S.M. (1999). Body image, social comparison, and eating disturbance: A covariance structure modelling investigation. *International Journal of Eating Disorders, 26, 43-51.*

Tiggemann, M., & Lynch, J.E. (2001). Body image across the life span in adult women: The role of self-objectification. *Developmental Psychology, 37, 243-253.*

Tiller, J.M., Sloane, G., Schmidt, U., Troop, N., Power, M., & Treasure, J.L. (1997). Social support in patients with anorexia nervosa and bulimia nervosa. *International Journal of Eating Disorders, 21, 31-38.*

Tomkins, S.S. (1963). *Affect, imagery, consciousness. Vol.2. The negative affects.* New York: Springer.

Torresani, S., Favaretto, E., & Zimmermann, C. (2000). Parental representations in drug-dependent patients and their parents. *Comprehensive Psychiatry, 41, 123-129.*

Treasure, J., & Holland, A. (1995). Genetic factors in eating disorders. In G. Szmukler, C. Dare, & J. Treasure (Eds). *Handbook of Eating Disorders: Theory, Treatment and Research* (pp.65-81). Chichester: John Wiley & Sons.

Treasure, J., Schmidt, U., & van Furth, E. (Eds). (2003). *Handbook of Eating Disorders (2nd ed.).* Chichester: John Wiley & Sons, Ltd.

Troop, N.A., Holbrey, A., & Treasure, J.L. (1998). Stress coping and crisis support in eating disorders. *International Journal of Eating Disorders, 24, 157-166.*

Turnbull, S., Ward, A., Treasure, J., Jick, H., & Derby, L. (1996). The demand for eating disorder care. An epidemiological study using the general practice research database. *British Journal of Psychiatry, 169, 705-712.*

Turner, H.M., Rose, K.S., & Cooper, M.J. (2005). Parental bonding and eating disorder symptoms in adolescents: The mediating role of core beliefs. *Eating Behaviours, 6, 113-118.*

Utz, S. (2000). Social information processing in MUD's: The development of friendships in virtual worlds. *Journal of Online Behaviour, 1(1), 2-13.*

Van den Berg, P., Wertheim, E.H., Thompson, J.K., & Paxton, S.J. (2002). Development of body image, eating disturbance, and general psychological functioning in adolescent females: A replication using covariance structure modelling in an Australian sample. *International Journal of Eating Disorders, 32, 46-51.*

Van Hanswijck de Jonge, P., van Furth, E.F., Lacey, J.H., & Waller, G. (2003). The prevalence of DSM-IV personality pathology among individuals with bulimia nervosa, binge eating disorder and obesity. *Psychological Medicine, 33, 1311-1317.*

Van Hoeken, D., Seidell, J., & Hoek, H.W. (2003). Epidemiology. In J. Treasure, U. Schmidt, & E. van Furth (Eds.), *Handbook of Eating Disorders* (2nd Ed.) (pp.11-34). Chichester: John Wiley & Sons Ltd.

Waller, G. (2003). Schema-level cognitions in patients with binge eating disorder: A case control study. *International Journal of Eating Disorders, 33, 458-464.*

Waller, G., Dickson, C., & Ohanian, V. (2002). Cognitive content in bulimic disorders: Core beliefs and eating attitudes. *Eating Behaviours, 3, 171-178.*

Waller, G., Meyer, C., & Ohanian, V. (2001a). Psychometric properties of the long and short versions of the Young Schema Questionnaire: Core beliefs among bulimic and comparison women. *Cognitive Therapy and Research, 25, 137-147.*

Waller, G., Meyer, C., Ohanian, V., Elliot, P., Dickson, C., & Sellings, J. (2001b). The psychopathology of bulimic women who report childhood sexual abuse: The mediating role of core beliefs. *The Journal of Nervous and Mental Diseases, 189(10), 700-708.*

Waller, G., Ohanian, V., Meyer, C., & Osman, S. (2000). Cognitive content among bulimic women: The role of core beliefs. *International Journal of Eating Disorders, 28, 235-241.*

Walsh, B.T., & Garner, D.M. (1997). Diagnostic issues. In D.M. Garner & P.E. Garfinkel (Eds). *Handbook of Treatment of Eating Disorders (2nd Edition)* (pp. 25-33). New York: The Guilford Press.

Ward, A. & Gowers, S. (2003) Attachment and childhood development. In J. Treasure, U. Schmidt, & E. van Furth (Eds.). *Handbook of Eating Disorders (2nd Ed.)* (pp. 103-121). Chichester: John Wiley & Sons Ltd.

Ward, A., Ramsay, R., & Treasure, J. (2000). Attachment research in eating disorders. *British Journal of Medical Psychology, 73, 35-51.*

Weiss, L., Katzman, M., & Wolchik, S. (1994). Bulimia nervosa: Definition, diagnostic criteria and associated psychological problems. In L. Alexander-Mott & D.B. Lumsden (Eds.)(pp. 159-181). *Understanding Eating Disorders.* Washington, DC: Taylor & Francis.

Welch, S.L., Doll, H.A., & Fairburn, C.G. (1997). Life events and the onset of bulimia nervosa: A controlled study. *Psychological Medicine, 27(3), 515-522.*

West, M. & Sheldon, A. (1988). Classification of pathological attachment patterns in adults. *Journal of Personality Disorders, 2, 153-159.*

Wilhelm, K., Niven, H., Parker, G., & Hadzi-Pavlovic, D. (2005). The stability of the parental bonding instrument over a 20-year period. *Psychological Medicine, 35, 387-393.*

Willmuth, M.E., Leitenberg, H., Rosen, J.C., & Caldo, S. (1988). A comparison of purging and non-purging normal weight bulimics. *International Journal of Eating Disorders, 7, 825-835.*

Wonderlich, S.A. (1995). Personality and eating disorders. In K.D. Brownell & C.G. Fairburn (Eds). *Eating Disorders and Obesity: A Comprehensive Handbook* (pp. 171-176). New York: The Guilford Press.

Wood, A., Waller, G., & Gowers, S. (1994). Predictors of eating psychopathology in adolescent girls. *European Eating Disorders Review, 2, 6-13.*

World Health Organisation (1992). *The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines.* Geneva: WHO.

Young, J.E. (1999). *Cognitive therapy for personality disorders: A schema-focused approach.* Sarasota, FL: Professional Resources Press.

Young, J.E. (1994). *Cognitive therapy for personality disorders (2nd ed.).* Sarasota, FL: Professional Resources Press.

Young, J.E., & Brown, G. (1990). *Young Schema Questionnaire: Special Edition.* New York: Schema Therapy Institute.

Young, J.E., & Klosko, J.S. (1994). *Reinventing Your Life*. New York: Plume.

Young, J.E., Klosko, J.S., & Weishaar, M.E. (2003). *Schema Therapy: A Practitioner's Guide.* New York: Guilford Press.

Zigmond, A.S. & Snaith, R.P. (1983). The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica, 67, 361-370.*

Appendix 1. Ethics

Grampian Local Research Ethics Committee (2)
Summerfield House
2 Eday Road
Aberdeen
AB15 6RE

28 February 2005

Miss Laura Keith
Trainee Clinical Psychologist
Grampian Eating Disorders Service
Fulton Clinic
Royal Cornhill Hospital
Aberdeen
AB25 2ZH

Dear Miss Keith

Full title of study: ***An Exploration of the Main Sources of Shame in an Eating Disorder Population***
REC reference number: ***05/S0802/23***
Protocol number:

Thank you for your letter of , responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Conditions of approval

The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Management approval

The study should not commence at any NHS site until the local Principal Investigator has obtained final management approval from the R&D Department for the relevant NHS care organisation.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

05/S0802/23	Please quote this number on all correspondence

With the Committee's best wishes for the success of this project,

Yours sincerely,

Professor Nigel R Webster
Chair

Enclosures *Standard approval conditions*

Appendix 2. Participant Information Sheet

Grampian Eating Disorders Service
Fulton Clinic, Royal Cornhill Hospital, Aberdeen
Tel: 01224 557

An Invitation to Participate in Research

Study Title: Shame and Eating Disorders

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please feel free to contact us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

What is the purpose of this study?

The purpose of this study is to look at some of the reasons that people with eating disorders experience shame. We know that people with eating disorders often experience strong feeling of shame, however at this point in time this is the extent of our knowledge. This study seeks to help us understand the experience and role of shame in people who have been diagnosed with an eating disorder. In gaining a better understanding, we are then able to help individuals in a more effective way should they wish to seek help. This study will be conducted over a period of approximately six months.

Why have I been chosen?

The study invites people with a current diagnosis of an eating disorder to take part. You were identified either through your referral to Grampian's Eating Disorders Service or through your contact with the Eating Disorder Association. Approximately 200 people will be contacted to take part.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason. This will not affect the standard of care you receive.

What will happen to me if I take part?

Taking part in the research will involve completing 5 questionnaires and some information about yourself. These will include;

Demographic Information Sheet	**3-5mins**
Experience of Shame Scale (ESS)	**8-10mins**
Parental Bonding Inventory (PBI)	**5-7mins**
Beck Depression Inventory (BDI)	**3-5mins**
Social Isolation subscale of the Young Schema Questionnaire (YSQ)	**3-5mins**
Eating Disorder Diagnostic Scale (EDDS)	**8-10mins**

You can complete and return these on your own or with your clinician if you are currently in treatment.

You may also be given the opportunity to meet the researcher to talk in more detail about your experiences. Only 3-4 people will be selected for this. You are under no obligation to agree to do this.

What do the questionnaires look at?
The questionnaires look at:
The types of shame you experience
The relationship you had with your mother and father as a child
Your current feelings of depression
Feelings of social isolation
Eating disorder behaviours

What are the possible disadvantages and risks of taking part?
The questionnaires that we are going to use in the research have been completed by lots of people to make sure they are suitable to be used by researchers and clinicians. However, due to the nature of the topics that the questionnaires and research focus on, e.g. eating disorders, shame, and relationships with parents etc, you may find some of the questions upsetting.

What are the possible benefits of taking part?
Although there may be no direct benefits to you as a direct result of taking part in the research, the information that we get from this study may help us treat future patients with similar problems better.

Will my taking part in this study be kept confidential?
All information collected about you during the course of the research will be kept strictly confidential. The only individuals that will have knowledge of the answers you have given will be the researchers. When your questionnaires are received, the consent sheet that you sign will be removed from them, and stored in a locked filing cabinet. You will then be assigned a numerical code, to protect your identity when the questionnaire information is being processed.

What will happen to the results of the research?
The results of the study will be written up as a dissertation project. Information from this may be used in presentations to health professionals or client groups. They may also be published in psychological journals. **However, you will not be identified in any presentation or publication.**

Who has reviewed the study?
Grampian Research Ethics Committee have reviewed the study and approved the aims and methods used.

What do I do now?
Please read the information contained in this form carefully to help you decide if you would like to participate in this study. If you decide that you would like to take part, please complete the questionnaires carefully and return them in the stamped addressed envelope provided within four weeks. This time restriction is necessary due to time limitations imposed by the university. Please keep this information sheet for your own use.

You will only have to complete your name on the consent form. You do not need to put your name on any of the questionnaires as they will be numerically coded.

If you wish to ask any questions or require further information, please contact

Laura Keith
Trainee Clinical Psychologist (Principal Investigator)
Grampian Eating Disorders Service
Fulton Clinic
Royal Cornhill Hospital
Aberdeen
Tel: (01224) 557 392

Thank you for taking your time to read this information and for considering taking part in our study. It is hoped the results of the research will provide information that will have beneficial implications for the treatment of eating disorders. Your participation is therefore greatly appreciated.

Laura Keith
Trainee Clinical Psychologist

Susan Simpson
Chartered Clinical Psychologist

Appendix 3. Consent Form

Eating Disorders Service
Fulton Clinic
Royal Cornhill Hospital
Aberdeen

Code _____

Participant Consent Form
Study: Shame and Eating Disorders

Your name: _____

Principal Investigator: Laura Keith, Trainee Clinical Psychologist

Please read the information below and sign if you agree with the statement.

I have read the participant information sheet on the above study and have been given a contact number and the opportunity to discuss the details with Laura Keith and ask questions if I wish.

I have agreed to take part in the study as it has been outlined to me, but I understand that I am completely free to withdraw from the study or any part of the study at any time I wish and that this will not affect my continuing psychological treatment in any way.

I understand that these trials are part of a research project designed to promote healthcare knowledge, which has been approved by the Grampian Research Ethics Committee, and may be of no benefit to me personally.

I hereby fully and freely consent to participate in the study which has been fully explained to me.

Signature: _____
Date: _____

The above participant will be able to contact me if they have any queries at any time throughout the research study.

_____
Laura Keith
Trainee Clinical Psychologist

Appendix 4. Demographic Information Sheet

Code _____

Demographic Information Sheet

Please answer the following questions about yourself. If you are unsure of any answers please give your best guess or estimate.

AGE: _____ SEX: _____ (M or F)

Relationship Status (please tick)

Single:	_____	Separated:	_____
Married:	_____	Live with Someone:	_____
Divorced:	_____	Widowed:	_____

OCCUPATION: _____

Were you contacted via:
Grampian Eating Disorders Service _____ OR
Eating Disorders Association _____

Are you currently in treatment for your eating disorder? Y/N

Current Contact with Professionals
(Please tick and give an estimate of how long you have been seeing this professional)

		Estimate how long
Clinical Psychologist	____	_____
Psychiatrist	____	_____
CPN	____	_____
Other (please state)	____	_____
	____	_____

Previous Contact with Professionals
(Please tick and give an estimate of how long you have seen this professional in the past)

		Estimate how long
Clinical Psychologist	____	_____
Psychiatrist	____	_____
CPN	____	_____
Other (please state)	____	_____
	____	_____

Have you ever been bullied or teased? Y/N

If yes:

Did this occur at primary school? Y/N

Did this occur at secondary school? Y/N

Did this occur in any other context? Y/N

If yes, please describe _____

_____

Do you think this contributed to your current eating disorder? Y/N

Thank you for completing this questionnaire

Appendix 5. Hospital Anxiety and Depression Scale

HADS

Name:_____ Date:_____

Clinicians are aware that emotions play an important part in most illnesses. If your clinician knows about these feelings he or she will be able to help you more. This questionnaire is designed to help your clinician to know how you feel. Read each item below and **underline the reply** which comes closest to how you have been feeling in the past week.

Don't take too long over your replies, your immediate reaction to each item will probably be more accurate than a long, thought out response.

A	D		A	D
		I feel tense or wound up	**I feel as if I am slowed down**	
3		Most of the time	Nearly all the time	3
2		A lot of the time	Very often	2
1		From time to time, occasionally	Sometimes	1
0		Not at all	Not at all	0
		I still enjoy the things I used to enjoy	**I get a sort of frightened feeling like 'butterflies' in the stomach**	
	0	Definitely as much	Not at all	0
	1	Not quite so much	Occasionally	1
	2	Only a little	Quite often	2
	3	Hardly at all	Very often	3
		I get a sort of frightened feeling as if something awful is about to happen	**I have lost interest in my appearance**	
3		Very definitely and quite badly	Definitely	3
2		Yes, but not too badly	I don't take as much care as I should	2
1		A little, but it doesn't worry me	I may not take quite as much care	1
0		Not at all	I take just as much care as ever	0
		I can laugh and see the funny side of things	**I feel restless as if I have to be on the move**	
	0	As much as I always could	Very much indeed	3
	1	Not quite so much now	Quite a lot	2
	2	Definitely not so much now	Not very much	1
	3	Not at all	Not at all	0
		Worrying thoughts go through my mind	**I look forward with enjoyment to things**	
3		A great deal of the time	As much as I ever did	0
2		A lot of the time	Rather less than I used to	1
		Not too often	Definitely less than I used to	2
0		Very little	Hardly at all	3
		I feel cheerful	**I get sudden feelings of panic**	
	3	Never	Very often indeed	3
	2	Not often	Quite often	2
	1	Sometimes	Not very often	1
	0	Most of the time	Not at all	0
		I can sit at ease and feel relaxed	**I can enjoy a good book or radio or television program**	
		Definitely	Often	0
		Usually	Sometimes	1
		Not often	Not often	2
		Not at all	Very seldom	3

Now check that you have answered all the questions

TOTAL **A** **D**

Appendix 6. Parental Bonding Instrument

Parental Bonding Instrument

This questionnaire lists various attitudes and behaviours of parents. As you remember your mother/father in your first 16 years would you place a tick in the most appropriate brackets next to each question.

MOTHER	**Very Like**	**Moderately Like**	**Moderately Unlike**	**Very Unlike**
1. Spoke to me with a warm and friendly voice	( )	( )	( )	( )
2. Did not help me as much as I needed	( )	( )	( )	( )
3. Let me do things I liked doing	( )	( )	( )	( )
4. Seemed emotionally cold to me	( )	( )	( )	( )
5. Appeared to understand my problems and worries	( )	( )	( )	( )
6. Was affectionate to me	( )	( )	( )	( )
7. Liked me to make my own decisions	( )	( )	( )	( )
8. Did not want me to grow up	( )	( )	( )	( )
9. Tried to control everything I did	( )	( )	( )	( )
10. Invaded my privacy	( )	( )	( )	( )
11. Enjoyed talking things over with me	( )	( )	( )	( )
12. Frequently smiled at me	( )	( )	( )	( )
13. Tended to baby me	( )	( )	( )	( )
14. Did not seem to understand what I needed or wanted	( )	( )	( )	( )
15. Let me decide things for myself	( )	( )	( )	( )
16. Made me feel I wasn't wanted	( )	( )	( )	( )
17. Could make me feel better when I was upset	( )	( )	( )	( )
18. Did not talk with me very much	( )	( )	( )	( )
19. Tried to make me dependent on her	( )	( )	( )	( )
20. Felt I could not look after myself unless she was around	( )	( )	( )	( )
21. Gave me as much freedom as I wanted	( )	( )	( )	( )
22. Let me go out as often as I wanted	( )	( )	( )	( )
23. Was overprotective of me	( )	( )	( )	( )
24. Did not praise me	( )	( )	( )	( )
25. Let me dress in any way I pleased	( )	( )	( )	( )

FATHER	**Very Like**	**Moderately Like**	**Moderately Unlike**	**Very Unlike**
1. Spoke to me with a warm and friendly voice	( )	( )	( )	( )
2. Did not help me as much as I needed	( )	( )	( )	( )
3. Let me do things I liked doing	( )	( )	( )	( )
4. Seemed emotionally cold to me	( )	( )	( )	( )
5. Appeared to understand my problems and worries	( )	( )	( )	( )
6. Was affectionate to me	( )	( )	( )	( )
7. Liked me to make my own decisions	( )	( )	( )	( )
8. Did not want me to grow up	( )	( )	( )	( )
9. Tried to control everything I did	( )	( )	( )	( )
10. Invaded my privacy	( )	( )	( )	( )
11. Enjoyed talking things over with me	( )	( )	( )	( )
12. Frequently smiled at me	( )	( )	( )	( )
13. Tended to baby me	( )	( )	( )	( )
14. Did not seem to understand what I needed or wanted	( )	( )	( )	( )
15. Let me decide things for myself	( )	( )	( )	( )
16. Made me feel I wasn't wanted	( )	( )	( )	( )
17. Could make me feel better when I was upset	( )	( )	( )	( )
18. Did not talk with me very much	( )	( )	( )	( )
19. Tried to make me dependent on him	( )	( )	( )	( )
20. Felt I could not look after myself unless he was around	( )	( )	( )	( )
21. Gave me as much freedom as I wanted	( )	( )	( )	( )
22. Let me go out as often as I wanted	( )	( )	( )	( )
23. Was overprotective of me	( )	( )	( )	( )
24. Did not praise me	( )	( )	( )	( )
25. Let me dress in any way I pleased	( )	( )	( )	( )

Appendix 7. Experience of Shame Scale

Experience of Shame Scale

These questions are about your feelings about yourself and the way you look. Please answer in relation to how you have felt recently (i.e. over the past year). There are no "right" or "wrong" answers. Please indicate the response which applies to you with a tick.

1. Have you felt ashamed of any of your personal habits?

Not at all
A little
Moderately
Very much

2. Have you worried about what other people think of any of your personal habits?

Not at all
A little
Moderately
Very much

3. Have you tried to cover up or conceal any of your personal habits?

Not at all
A little
Moderately
Very much

4. Have you felt ashamed of your manner with others?

Not at all
A little
Moderately
Very much

5. Have you worried about what other people think of your manner with others?

Not at all
A little
Moderately
Very much

6. Have you avoided people because of your manner?

Not at all
A little
Moderately
Very much

7. Have you felt ashamed of the type of person you are?

Not at all
A little
Moderately
Very much

8. Have you worried about what other people think of the sort of person you are?

Not at all
A little
Moderately
Very much

9. Have you tried to conceal from others the sort of person you are?

Not at all
A little
Moderately
Very much

10. Have you felt ashamed of your ability to do things?

Not at all
A little
Moderately
Very much

11. Have you worried about what other people think of your ability to do things?

Not at all
A little
Moderately
Very much

12. Have you avoided people because of your inability to do things?

Not at all
A little
Moderately
Very much

13. Do you feel ashamed when you do something wrong?

Not at all
A little
Moderately
Very much

14. Have you worried about what other people think of you when you do something wrong?

Not at all
A little
Moderately
Very much

15. Have you tried to cover up or conceal things you felt ashamed of having done?

Not at all
A little
Moderately
Very much

16. Have you felt ashamed when you said something stupid?

Not at all
A little
Moderately
Very much

17. Have you worried about what other people think of you when you have said something stupid?

Not at all
A little
Moderately
Very much

18. Have you avoided contact with anyone who knew you said something stupid?

Not at all
A little
Moderately
Very much

19. Have you felt ashamed when you failed in a competitive situation?

Not at all
A little
Moderately
Very much

20. Have you worried about what other people think of you when you failed in a competitive situation?

Not at all
A little
Moderately
Very much

21. Have you avoided people who have seen you fail?

Not at all
A little
Moderately
Very much

22. Have you felt ashamed of your body or any part of it?

Not at all
A little
Moderately
Very much

23. Have you worried about what other people think of your appearance?

Not at all
A little
Moderately
Very much

24. Have you avoided looking at yourself in the mirror?

Not at all
A little
Moderately
Very much

25. Have you wanted to hide or conceal your body?

Not at all
A little
Moderately
Very much

26. Have you felt ashamed of your behaviours around eating?

Not at all
A little
Moderately
Very much

27. Have you worried about what other people think of your behaviours around eating?

Not at all
A little
Moderately
Very much

28. Have you tried to hide or conceal your behaviours around eating?

Not at all
A little
Moderately
Very much

Appendix 8. Young Schema Questionnaire – Social Isolation

Social Isolation Subscale of the Young Schema Questionnaire

INSTRUCTIONS:

Listed below are statements that a person might use to describe himself or herself. Please read each statement and decide how well it describes you. When you are not sure, base your answer on what you emotionally **feel**, not on what you **think** to be true.

If you desire, reword the statement so that the statement would be even more true of you. Then choose the **highest rating from 1 to 6** that describes you (including your revisions), and write the number in the space before the statement.

RATING SCALE:

1 = Completely untrue of me
2 = Mostly untrue of me
3 = Slightly more true than untrue
4 = Moderately true of me
5 = Mostly true of me
6 = Describes me perfectly

EXAMPLE:

I care about

A. __4__ I worry that people ^ will not like me

45. _____ I don't fit in.

46. _____ I'm fundamentally different from other people.

47. _____ I don't belong; I'm a loner.

48. _____ I feel alienated from other people.

49. _____ I feel isolated and alone.

50. _____ I always feel on the outside of groups.

51. _____ No one really understands me.

52. _____ My family was always different from the families around us.

53. _____ I sometimes feel as if I'm an alien.

54. _____ If I disappeared tomorrow, no one would notice.

Appendix 9. Eating Disorders Diagnostic Scale

Appendix B

Eating Screen

carefully complete all questions.

past 3 months . . .	Not at all		Slightly		Moderately		Extremely
ave you felt fat?	0	1	2	3	4	5	6
ave you had a definite fear that you ght gain weight or become fat?	0	1	2	3	4	5	6
s your weight influenced how you nk about (judge) yourself as a person?	0	1	2	3	4	5	6
s your shape influenced how you think out (judge) yourself as a person?	0	1	2	3	4	5	6

ring the past 6 months have there been times when you felt you have eaten what other people would regard as an unusually large amount of od (e.g., a quart of ice cream) given the circumstances? YES NO

ring the times when you ate an unusually large amount of food, did you experience a loss of control (feel you couldn't stop eating or control at or how much you were eating)? YES NO

w many DAYS per week on average over the past 6 MONTHS have you eaten an unusually large amount of food and experienced a loss of ntrol? 0 1 2 3 4 5 6 7

w many TIMES per week on average over the past 3 MONTHS have you eaten an unusually large amount of food and experienced a loss of ntrol? 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

ese episodes of overeating and loss of control did you . . .

much more rapidly than normal? YES NO

until you felt uncomfortably full? YES NO

large amounts of food when you didn't feel physically hungry? YES NO

alone because you were embarrassed by how much you were eating? YES NO

l disgusted with yourself, depressed, or very guilty after overeating? YES NO

l very upset about your uncontrollable overeating or resulting weight gain? YES NO

v many times per week on average over the past 3 months have you made yourself vomit to prevent weight gain or counteract the effects of ng? 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

v many times per week on average over the past 3 months have you used laxatives or diuretics to prevent weight gain or counteract the cts of eating? 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

v many times per week on average over the past 3 months have you fasted (skipped at least 2 meals in a row) to prevent weight gain or nteract the effects of eating? 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

v many times per week on average over the past 3 months have you engaged in excessive exercise specifically to counteract the effects of eating episodes? 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

v much do you weigh? If uncertain, please give your best estimate. ____lb

v tall are you? __ft __in.

r the past 3 months, how many menstrual periods have you missed? 1 2 3 4 *na*

e you been taking birth control pills during the past 3 months? YES NO

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Appendix 10. Interview Questions

Interview Questions

Eating Disorders

1. Can you tell me a bit about your eating disorder?
2. How long have you been in therapy?

Bulimic

3. When did you first binge?
4. What were your reasons for this?
5. When did you first vomit/use laxitives/use diuretics/or compensate in any other way?
6. What were your reasons for this?
7. How do you think these behaviours help you?
8. What triggers a binge?

Think back to the last time you binged:

9. Describe the feelings/emotions you experience before you binge. Did you experience any feelings of shame, if so on a scale of 1-10, with 10 being the strongest you have ever felt this way, how strong was this level of shame?
10. Describe the feelings/emotions you experience during a binge. Did you experience any feelings of shame, if so on a scale of 1-10, with 10 being the strongest you have ever felt this way, how strong was this level of shame?
11. Describe the feelings/emotions you experience after a binge. Did you experience any feelings of shame, if so on a scale of 1-10, with 10 being the strongest you have ever felt this way, how strong was this level of shame?

Think back to the last time you vomited (or compensated in any other way):

12. Describe the feelings/emotions you experience before you vomit (or compensate in any other way). Did you experience any feelings of shame, if so on a scale of 1-10, with 10 being the strongest you have ever felt this way, how strong was this level of shame?
13. Describe the feelings/emotions you experience while you vomit (or compensate in any other way). Did you experience any feelings of shame, if so on a scale of 1-10, with 10 being the strongest you have ever felt this way, how strong was this level of shame?
14. Describe the feelings/emotions you experience after you vomit (or compensate in any other way). Did you experience any feelings of shame, if so on a scale of 1-10, with 10 being the strongest you have ever felt this way, how strong was this level of shame?
15. How do you feel about yourself in relation to these bingeing and purging behaviours?

Restricting

16. When did you first start to restrict your food intake?
17. What were the reasons for this?
18. How do you think this helps you?
19. How do you feel when you stick to your dietary rules? Think back to the last time this happened, did you experience any feelings of pride, if so on a scale of 1-10, with 10 being the strongest you have ever felt this way, how strong was this level of pride?

20. How do you feel when you break your dietary rules? Think back to the last time this happened, did you experience any feelings of shame, if so on a scale of 1-10, with 10 being the strongest you have ever felt this way, how strong was this level of shame?
21. How does being underweight make you feel?
22. How do you feel about yourself in relation to your eating disorder?

Shame

23. How would you describe the feeling of shame?
24. Do you ever experience shame?
25. Do you ever experience shame in relation to your eating? If so, please explain what aspects of your eating you are ashamed of.
26. Do you use your eating to cope with your feelings of shame?
27. When you binge/vomit/restrict, do these feelings reduce/become easier to cope with or go away?
28. How early in your life do you first remember feeling ashamed?
29. Do you remember feelings of shame before your eating disorder developed? If so, what was this shame about?
30. What do you think causes your shame?
31. Do you ever feel proud? What makes you feel proud of yourself?

Bullying/Teasing

32. Tell me about your experiences of being bullied or teased.
33. What were you bullied/teased about?
34. How did this affect your beliefs about yourself?
35. Did this affect you in any other way?
36. How does this experience relate to your current eating disorder?
37. How does this relate to your current feelings of shame?

38. Do you have any other comments you think might be relevant to the topic of shame and eating disorders?

Appendix 11. Mann-Whitney Results for Questionnaire Scores in Bullied and Non-Bullied Groups

Results of Mann-Whitney U test comparing questionnaire scores between the bullied and non-bullied participants

Measure	Bullied?	N	Mean Rank	Sum of Ranks	U	p-value	Z
HADS Anxiety	No	11	28.77	316.5	200.5	.574	-.563
	Yes	41	25.89	1061.5			
HADS Depression	No	11	21.68	238.5	172.5	.234	-1.191
	Yes	41	27.79	1139.5			
PBI mC	No	11	31.59	347.5	169.5	.209	-1.256
	Yes	41	25.13	1030.5			
PBI mP	No	11	22.82	251.0	185.0	.364	-.909
	Yes	41	27.49	1127.0			
PBI pC	No	11	25.00	275.0	209.0	.711	-.370
	Yes	41	26.90	1103.0			
PBI pP	No	11	27.77	305.5	200.5	.655	-.447
	Yes	41	25.51	1020.5			
EDDS (Symp. Comp.)	No	11	25.55	281.0	215.0	.814	-.235
	Yes	41	26.76	1097.0			
YSQ SI	No	11	17.86	196.5	130.5	.040	-2.052
	Yes	40	28.24	1129.5			
ESS Total	No	11	31.32	344.5	172.5	.235	-1.188
	Yes	41	25.21	1033.5			

Appendix 12. Pearson Correlation Matrix of Associations Between Variables

Figure 3.3. Correlation Coefficients between self-report measures

Measure	ESS Total	HADS A	HADS D	mC	mP	pC	pP	EDDS	YSQ-SI
ESS Total Score (ESS Total)	1								
HADS Anxiety	-.491**	1							
HADS Depression	-.556**	.569**	1						
PBI Maternal Care (mC)	.099	.007	-.339*	1					
PBI Maternal Protectiveness (mP)	-.161	.014	.229	-.356**	1				
PBI Paternal Care (pC)	.118	-.042	-.151	.211	.109	1			
PBI Paternal Protectiveness (pP)	-.264	.136	.166	-.163	.442**	-.119	1		
EDDS Symptom Composite	-.434**	.351*	.387**	-.109	-.038	-.288*	.006	1	
YSQ Social Isolation (YSQ-SI)	-.655**	.372**	.642**	-.462**	.230	-.122	.244	.353*	1

*** $P < 0.05$ (2-tailed) ** $P < 0.01$ (2-tailed)**